



The FRUIT WORLD OF AUSTRALASIA and

"Market Grower"

(Circulates throughout all the States of Australia and New Zealand and Overseas)

NEVER
SEEN BEFORE

The Latest

IT
IS NEW

"Lightning" System of Sizing Is 100% Perfect

FRACTIONAL ADJUSTMENT FOR EACH BIN
Two or more bins for each size. The correct size for each count.

The Principle of the Soft Rubber Roller and Soft Rubber Belt is Retained
The fruit gently rolls from section to section along the roller.

The only Grader that will definitely size every variety and shape of fruit Without Injury

"Lightning" Packing House Equipment

INCLUDES—

One, Two, Three Quality Sizers
Pear and Lemon Graders
Lidding Presses — Clamps Trucks — Paper Holders,
etc.

Sorting Tables and Elevators
Apple Washers and Driers
All Types of Washers, Driers, Polishers, etc., for
Citrus.

ETHYLENE GAS to Recolour Valencias.

IT IS WORTH A TRIAL

The Lightning Fruit Grader Company

517 Albion Street, West Brunswick, Victoria, Australia

— AGENTS IN ALL STATES. —

"The Fruit, Flower and Vegetable Trades' Journal"

3d. WEEKLY

Annual Subscription Overseas, Post Free, 21/- (52 Issues)

The recognised organ of the Wholesale and Retail
distributing sides of the Industry in the United
— Kingdom. —

Also publishers of:—

"The Science and Practice of Manuring"

Revised and Enlarged Edition.

By W. DYKE.

Price 2/- nett.

Post Free 2/2 Overseas.

In 13 Chapters:—

Origin and History of Manures. Plants and
their Food. Influence of Manures on Crops.
Soils and their Influence on Manuring. Soil
Fertility, Partial Sterilisation. Facts to Guide
Cultivators. General Manures. Concentrated
Fertilisers (continued). Fertilisers for Vege-
tables. Fertilisers for Fruit. Fertilisers for
Flowers. Points to remember when Manuring.

"The Florists' Art"

A Compendium of the Florist's Business,
treating with Colour Effects, Table Decorations
and the entire process of "Making-up." Fully
illustrated with many full plate art designs.

5/- nett (Post free overseas 5/6).

Lockwood Press Ltd.

1 MITRE COURT, FLEET ST., LONDON

Telegraphic Address:

"Journalary, Fleet, London."

Telephone No.

Central 1862.

BENDER & CO.

PTY. LTD.

100 Elizabeth Street Launceston

and at Huonville

Post Box 394

Telegrams "Benco"

Shipping Agents Fruit Exporters Cool Storage Proprietors

(Accommodation 25,000 Cases)

Agents for Cooper's Famous Sprays.

Direct Importers of Apple Wrapping
Paper, Swedish Woodwool, etc.

Send us particulars of your
requirements for all Orchard
Requisites.

BLYTH'S **"BLUE BELL"** **Quality Sprays**

MADE IN AUSTRALIA

FOR TWENTY-FIVE YEARS "BLUE BELL" ARSENATE OF LEAD HAS PROVED A FAITHFUL FRIEND TO GROWERS.

Extract "BETTER FRUIT," U.S.A., February, 1934:

"Codlin Moth and Its Control," by LEROY CHILDS, Superintendent Hood Experimental Station.

CODLIN MOTH has been given increasing attention by many investigators for a period of more than 50 years. Innumerable insecticides and combinations of insecticides have been tested throughout the world.

A survey of the experimental work conducted in Oregon, Washington and Idaho, points out definitely that the codlin moth can be controlled by employing the old standard method of Arsenate of Lead. A resume of experimental data brought up to date, indicates conclusively that there is extant no satisfactory substitutes for Arsenate of Lead.

ARSENATE OF LEAD (Paste or Powder), **LIME SULPHUR**, **SPECIAL COPPER MIXTURE** (Fungicide), **SPRAY SPREADER**, **WHITE OIL**, **NICOTINE SULPHATE**, **RED OIL**, Etc.

Blyth Chemicals Ltd.

Phone Cent. 756

31 Queen Street - Melbourne

INTERSTATE AGENTS—

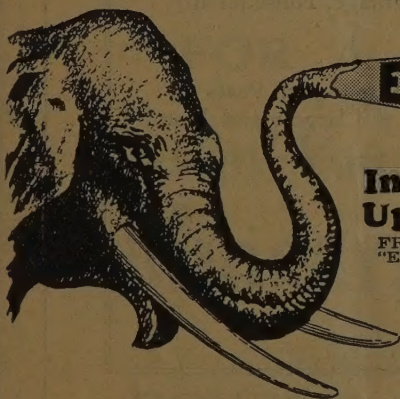
Tasmania: W. D. Peacock & Co. Ltd., Princes Wharf,
Hobart. H. Jones & Co. Ltd., Charles St., Launceston.

New South Wales: Lanes Ltd., 69 Abercrombie St., Sydney.

Queensland: Qld. Fruitgrowers' Trading Soc., Brisbane.
South Australia: George Wills & Co. Ltd., Gilbert House,
Gilbert Place, Adelaide.

Western Australia: Gibbs, Bright & Co., Perth.

Works: Prahran Grove, Elsternwick, Victoria - L1468



ELEPHANT BRAND SPRAY

**Insist
Upon it!**

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

Use "Elephant" Brand Arsenate of Lead

QUALITY STANDS ALONE

We can supply all your Spray Requirements—**ARSENATE OF LEAD** (Paste or Powder), **SPRAY SPREADER**, **SPECIAL COPPER MIXTURE**, **LIME SULPHUR**, **WHITE OIL**, **NICOTINE SULPHATE**, **RED OIL**, Etc.

Extract "BETTER FRUIT," U.S.A., February, 1934:

"Idaho Spray Programme for Codlin Moth Control, 1934," by Dr. Claude Wakeland, Department of Entomology, University of Idaho.

Experiments in the State for the past six years have shown that **LEAD ARSENATE** is the best, as well as the most economical insecticide that we have tested for Codlin Moth control. Entomologists are agreed that there is no substitute for Lead Arsenate that can be recommended to the public.

JAQUES PTY. LTD.,

Are Actual Manufacturers and Distributors of "ELEPHANT" Brand Sprays.

City Office: 31 Queen Street, Melbourne Telephone: Cent. 756

Factory: MADDEN GROVE, BURNLEY, E.I. MELB., Vic. Telephone: J 2008.

INTERSTATE AGENTS:

N.S.W.—Producers' Distributing Society Ltd., Valentine

and Quay Streets, Sydney.

Qld.—Buzacott's Ltd., Adelaide Street, Brisbane.

S.A.—Harold Charlack Pty. Ltd., 51 Grenfell St., Adelaide.

W.A.—Westralian Farmers' Ltd., 569 Wellington St., Perth.

Tas.—R. Nettlefold Pty., Hobart. Bell & Gerrard, Launceston. Cocker, Bell Pty., Devonport.

N.Z.—Pizzey, McInnes Ltd., Box 1114, G.P.O., Auckland.

Cables—Monro, London

Codes—A.B.C. 5th Edition and Bentley's

GEO. MONRO Ltd.

The Most Important Fruit-Distributing Organisation
in the World.

COVENT GARDEN MARKET, LONDON, and SMITHFIELD MARKET, MANCHESTER

Other Branches : BIRMINGHAM, GLASGOW, WORTHING, SPALDING and HULL



Sales on Commission, by Private Treaty only.

Over sixty years' of Fruit Distribution.

We do not purchase.

Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

(Established 1862)

DIRECTORS:

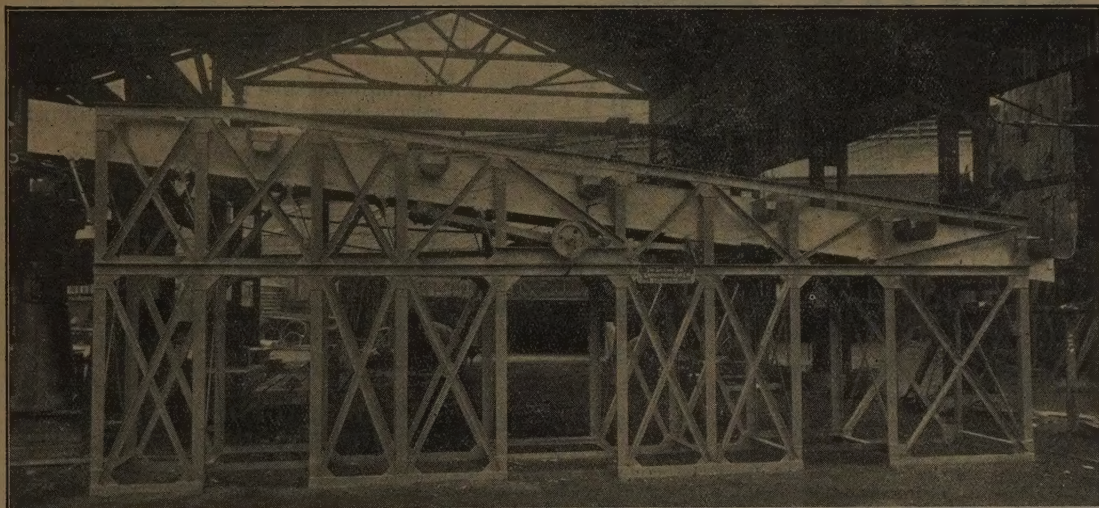
Major Edwin G. Monro, O.B.E. (Chairman), Geo. Monro, C.B.E., Bert J. Monro,
Captain J. Stuart Monro, Alex. J. Monro, and C. Cole.

Chief Agent in Aust.—Major H. Dakin, V.D., Goldsbrough House, Macquarie Place, Sydney, N.S.W.

Victorian Representative
Southern Tasmanian Representative
Northern Tasmanian Representative
West Australian Representative

Esmond Russell Pty. Ltd., 395 Collins St., Melbourne.
W. H. Ikin & Son, Dunn Street, Hobart.
Bell & Gerrard, No. 200 Cimitiere St., Launceston.
The Westralian Farmers Ltd., Perth.

STEP TYPE PEACH GRADER



Following the Draper Blancher. Capacity 20 Tons Per Hour.

Manufactured in our Works from Anderson Barngrover Drawings.

The Austral Otis-Engineering Co. Ltd.

Phone: M 1257.

P.O. Box 3, South Melbourne.

FOR A REAL SALES SERVICE

Under the Personal Supervision of the Directors

Consign Your Fruit to—

Minear, Munday & Miller

Limited.

Fruit Brokers and Commission Salesmen

COVENT GARDEN - - LONDON

Sole Selling Agents in London for
THE SOUTH AUSTRALIAN GOVERNMENT
FOR FRESH FRUITS.

An All the Year Round Clientele for
APPLES, PEARS, and ORANGES.

Sales by PRIVATE TREATY or AUCTION as Desired.

N.S.W. Representatives.—MACDERMOTT & SHEEDY, Municipal Fruit Markets, Sydney.

West Aust. Representative.—A. HICKS, 18 William Street, Perth.

Victorian Representatives.—Messrs. GOLLIN & CO. PTY. LTD., 561 Bourke Street, Melbourne.

Bankers:—NATIONAL PROVINCIAL BANK LTD.,
LONG ACRE, LONDON.

Cable Address:—"ORLEMFRUIT,"
LONDON.

LION BRAND.



All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for Prices and Particulars to:

ORCHARD SPRAYS PTY. LTD., 549-51 Church Street, Richmond, Victoria, or—
CAMERON, SUTHERLAND & SEWARD PTY. LTD., Riverside Avenue, St. Melb., Vic.
SILBERT SHARP & BISHOP LTD., Rundle Street, Adelaide, South Australia

Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
BORDEAUX COMPOUND
SPREADERS (SPECIAL)
CASEINATE
SPREADER (ORDINARY)
CALCIUM CASEINATE, ETC., ETC.

Remove Arsenate of Lead Poison from Pears and Apples

BY USING—

"HARVEY" INDROCHLORIC ACID Washing Machines

Will Not and Cannot Bruise the Fruit—Abreast of Best Machines Offering in the World To-day.

THOROUGH WASHING **CHEAP TO OPERATE**
ABOVE ALL — EFFICIENT.

"HARVEY" Special Pear Grader

Does Not Roll the Pears—Ensures No Bruising. Special device delivers the Pears, motionless, to their respective bins. Grading sections are adjustable to give any grade desired, and are independently operated. Made in sizes to suit the small grower or the packing shed.

Cheap, Fast and Efficient.

ANOTHER HARVEY MANUFACTURE

"Petty" Wonder Plow

Neglected centre strips, no matter how hard or how long unworked, or how much Couch Grass, plowed out with ease. Plows the hardest ground right up to and away from the butts of the trees. Made in two and three-furrow discs.

Write for Further Information and Names of Users.

SOLE MANUFACTURER AND DISTRIBUTOR IN THE COMMONWEALTH AND NEW ZEALAND:—

D. HARVEY, Box Hill, Melbourne

VICTORIA:

F. R. Mellor, 440 Elizabeth Street, Melbourne.

S. T. Parkin, Shepparton.

Representatives:

NEW SOUTH WALES:

Buzacott & Co. Ltd., 7-11 Market Street, Sydney.

QUEENSLAND:

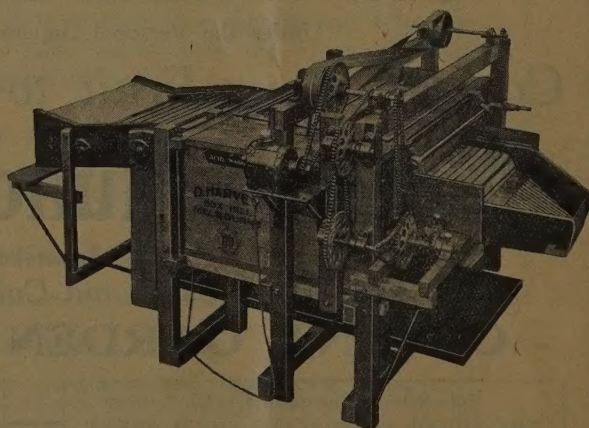
Clark & Fancet Ltd., 73 Eagle Street, Brisbane.

TASMANIA:

Max Geeves Pty. Ltd., Davey Street, Hobart.

Clements & Marshall Pty. Ltd., Launceston.

Harry Murray, Devonport.



Contents for January

Illustrations.	
Mr. J. A. Catto	8
Spray Residues on Fruit (3 Illus.)	10, 11
Californian Citrus Packing House	21
Packing Tomatoes (2 Illus.)	53, 54
Subjects.	
Apple Freights for 1935	7
Apple, New	8
Apples for Cider	11
Arsenical Residue on Fruit	9
Australian Apple Export	34, 35
Banana Packing	45
Banana Research	7
Berry Fruits	12, 13
Canned Fruits	35
Cans for Every Use	36
Citrus Notes	15, 16, 40
Codlin Moth	12
Cold Storage in Australasia	19-21
Company News	46
Crop Prospects—	
New South Wales	23, 24, 37
New Zealand	46
South Australia	24
Tasmania	12, 13
Victoria	22
Western Australia	24
Dried Fruits News and Notes	27-32
Editorial Chats	7
Fertilising Salts	9
Fruit Breeding and Pollination Investigations	43, 44
Fruit Drying	29-32
Fruit Marketing, To Improve	45
Fruit Pulp for Japan	35, 36
Fruits in Ice Cream	48
Health Notes	49
Home Notes and Recipes	47, 48
Italian Grapes	46
January in the Orchard	37
Market Grower	52
Market Notes and Prices	57-61
Motor Cars and Trucks	50, 51
News in Brief	8
New South Wales News and Notes	37
Orchard Tax in Tasmania	13
Personal	8
Pig Pen	49
Poultry Notes	48
Raspberries	42
River Murray Notes	39, 40
Shipping Claim Succeeds	9
South Australia	39-42
Spray Residues on Fruit	10, 11
Synthetic Soil	54, 55
Tasmanian News and Notes	12, 13
Tomato Culture	55
Tomato Juice	48
Tomatoes, Packing	53, 54
Trade with Fiji	7
Victorian News and Notes	33, 34
World's Largest Apple Case	9

INDEX TO ADVERTISERS.

Canning Machines—

Austral Otis Andabar Cannery Equipment Pty. Ltd., South Melbourne, p. 3.

Cold Storage—

Bender & Co., Launceston, Tas., cover ii.

Fruit Buyers—

Brooke, C. M., & Sons, S. Melb., p. 44.

Fruit Pads—

Anti-Bruze Corrugated Fruit Pads, p. 42.

Fruit Tree Suppliers—

Brunning, John, & Sons, Somerville, p. 39.

Nobelius, C. A., & Sons, Emerald, V., p. 40.

Goodman, C. J., Picnic Point Nurseries, Bairnsdale, p. 43.

Fruit Graders—

"Lightning," Lightning Fruit Grader Co., 517 Albion-street, W. Brunswick, N.12, Vic., front cover.

Manures, Fertilisers, Etc.—

Sulphate of Ammonia, Nitrogen Fertilisers Pty. Ltd., Melb., p. 32.

Orchard Implements—

Harvey, D., Box Hill, p. 4.

International Harvester Co. of Aust. Pty. Ltd., p. 36.

Patent Attorney—

U'Ren, Geo. A., Melbourne, p. 12.

Refrigerating Machinery—

Ruston & Hornsby, p. 20.

Werner, R., & Co. Pty. Ltd., Richmond, cover iii.

Spray Materials—

"Blue Bell" Arsenate of Lead, Lime, Sulphur, etc., Blyth Chemicals Ltd., Elsternwick, V., p. 1.

"Cooper" Sprays, William Cooper & Nephews (Aust.) Ltd., Sydney, and agents, p. 34.

"Elephant" Brand, Jaques Pty. Ltd., Burnley, V., p. 1.

ESA Bluestone—Elder Smith & Co. Ltd., p. 45.

"Gargoyle" Spraying Oil, Vacuum Oil Co. Pty. Ltd., Melbourne, p. 17.

Lion Brand, Orchard Sprays Pty. Ltd., 549 Church-street, Richmond, p. 4.

"Neptune" Spraying Oils, Neptune Oil Co. Ltd., Richmond, Vic., and all States, p. 6.

"Plane" Brand, Chemical Dusts, N. N. McLean Pty. Ltd., Melbourne, p. 52, 58.

Spray Hoses—

Hardie Rubber Co. Ltd., p. 16.

Strapping Fruit Cases—

Gerrard Wire Tying Machines Co. Pty. Ltd., W. Melb., p. 18.

Python Wire Strapping, p. 12, 23, 35, 41.

Transport—

Port of Hull, p. 25.

Tree Bands—

Victor Leggo & Farmers Ltd., p. 14.

Tree and Stump Pullers—

Trewhella Bros., Trentham, back outside cover.

Used Cars and Trucks—

M. V. Point Motors, Melbourne, p. 50.

Wood Wool—

Australian Berry Baskets Co., p. 36.

Willow Products Co., p. 26.



Neptune Prepared
Spraying Oils
"A" and "C."
Neptune Lime Sul-
phur Solution.
Neptune White
Spraying Oil.
Summer Use.
Neptune "Clarifol"
White Oil, for
Winter Use.
Neptune Spray
Spreader.
Berger's Arsenate
of Lead (Paste or
Powder).
Genuine Black Leaf
40.
Sicilian Sublimed
Sulphur.
Australian Powdered
Sulphur.

Write for our free booklet
for full details of above
sprays.

Clean fruit Assured—

when Neptune Sprays are used

Don't take risks with inferior materials—always specify the best. Neptune spraying preparations are obtainable through Agencies and Associations all over Australia, or direct from the Neptune Oil Company Limited.

NEPTUNE SPRAYING MATERIALS

NEPTUNE OIL COMPANY LIMITED

Melbourne Sydney Brisbane Adelaide Perth Hobart Launceston

Editorial Chats



WITH THE DAWN of 1935 we take this opportunity of wishing all our readers a Happy New Year, in the hope that the New Year which has just opened will indeed prove to be prosperous.

When the history of the past two decades comes to be written, it will be found that Australia, in common with all other parts of the world, has been passing through a transitional period. It will probably be a cause for wonder that in a world of abundant production there should be so much distress and unrest. By the application of scientific principles the production of primary and secondary goods has become increasingly easy, and now the problem seems to be the consumption of these products. Is our education system at fault? Are we training the rising generation along orthodox lines as units in a competitive world, and in doing so failing to find the secret of living together as a community?

We are learning, however slowly, that no man can live to himself, and this applies to the nations as well. Science has brought the nations together as never before, and we are realising that happenings in New Zealand, Canada, U.S.A., South Africa, England and Germany, have a profound bearing on plain Bill Smith and Tom Jones on their fruit blocks in Australia.

Many believe that when the teachings of the Galilean prophet are really applied we shall be able to live harmoniously together with peace on earth and goodwill to men. The "Sermon on the Mount" is practical politics, not the dream of a mystic.

While we in Australia must necessarily now think in larger terms of world markets, we know that efficiency at home is a cardinal virtue.

In all our thinking and planning we need tolerance and goodwill. Some very earnest men believe that legislative controls are imperative, others agree with James Harvey Robinson in his epoch-marking book "The Mind in the Making" that "while organisation is absolutely essential in human affairs.....our confidence in restriction and regimentation is exaggerated."

Surely there are none, however, who doubt the value of statistical and marketing research in the fruit industry. We are doing too much blindly, in ignorance of what is happening in the several States.

Shall we, in 1935, think in bigger terms? Acknowledge the sincerity of

those who seek in any way to bring ordered prosperity to the industry. Let our thinking be ordered and rational, but not necessarily too orthodox. We have an inherent right to challenge established beliefs, many of which if we are honest with ourselves, are based on preconceptions and prejudices.

THERE IS ONE SUBJECT on which all will be agreed, namely, that "service to the public" should be our slogan. Also we must honestly recognise that as an industry we have not functioned effectively in telling the public the health and food qualities of our products. We have given the field to the patent food and the patent medicine people—the one spending fabulous sums telling the people that Jimsons' bacon and rolled oats are the best and that people should eat lots of such, and the other spending as much to announce that Jamsons' patent powders will rid the system of the effects of over-eating.

Do not let us remain blind to the fact that advertising is a force: we can use it constructively. If we could double the consumption of fruit in Australia—and this is no chimerical ideal—we would not be worrying about overproduction and restrictions of export.

Without laboring the point, it appears that the ideals behind the National Mark movement are sound, i.e., organisation in the industry; trade co-operation; winning and maintaining the confidence of the public by consistently delivering standardised goods; advertising to increase fruit consumption; checking the sale of windfall and badly inferior fruit by hawkers and encouragement of the utilisation of poorer quality fruit in by-products.

We have the ability and the courage to move forward along these lines. We are not inferior to others. We can surmount difficulties which will inevitably arise.

Let us then with honesty of purpose, sound judgment, faith and courage step forward bravely into 1935, knowing that we are co-operating with all that is good in the universe.

IT PAYS TO ADVERTISE.

Recent advertising campaigns in England and Europe have definitely proved that advertising has increased the consumption of nuts and nut foods, and Californian importers of Brazil nuts have reached an agreement with the steamship companies by which a fund shall be raised for an advertising campaign to sweep the whole of Western America through newspapers and magazines, necessitating an expenditure of £20,000 during the coming summer. It is expected that sales will respond proportionately with the advance of the campaign.

APPLE FREIGHTS FOR 1935.

The new freight agreement for Apples provides for an allowance by shipowners of 2d. a case, to be made at the end of the fruit shipping season, provided that shippers conform to their engagements with shipowners in the interim.

In a normal season this concession, which carries a portion of exchange, would result in a saving to shippers of about £45,000, and shipowners have agreed to forego claims that shipowners had against various shippers to the extent of £26,000 with respect to last season only, the total amount saved should be of considerable assistance to the industry.

TRADE WITH FIJI.

Australian Primage Charge Removed to Permit Ottawa Agreement to Operate.

The Customs Department has issued a proclamation operating from December 14, 1934, exempting the payment of primage duty on produce from Fiji.

Several Queensland members in the House of Representatives protested against the Bill, claiming that unwarranted concessions were being granted to Fiji to the detriment of Australian growers.

Sir Henry Gullett (Asst. Minister in Charge of Trade Treaties), said that the concessions would give Fiji a better chance of exporting 40,000 centals of Bananas a year to Australia as agreed upon at the Ottawa Conference. He said that Fiji would not be allowed to send a higher figure to Australia, and that no further concessions would be given.

Fiji Bananas are also to be freed from Sales Tax.

Australia has a profitable trade with Fiji, which is in danger of being lost unless Fiji can send some of her produce to Australia. Under the Ottawa Agreement, Fiji can send 40,000 centals of Bananas to the Commonwealth, but until the above proclamation it was impossible for Fiji to exercise her rights under the Ottawa Agreement because of the primage and sales tax charges in Australia.

BANANA RESEARCH.

Additional £1,500 for 1935.

An additional £1,500 will be provided by the Federal Government in 1935 for Banana Research, making a total amount of £6,000 spread over three years. The additional money granted for 1935 will cover the cost of scientific work, including maturation, packing, transport and diseases of handling and transport.

PERSONAL.

A special vote of thanks was recently passed to Mr. W. McMahon, of Harcourt North, who has made his packing shed available to the Harcourt School for the weekly Apple packing classes which are conducted by Mr. W. Harris, of the Department of Agriculture, Melbourne.

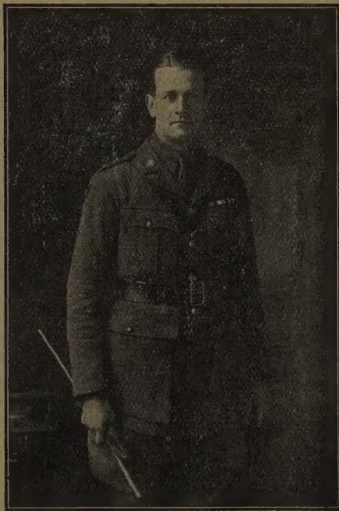
In appreciation of his services, a presentation is to be made by South Australian fruitgrowers and market gardeners, to Mr. G. Quinn, Chief Horticultural Instructor, on his retirement.

MR. J. A. CATTO, RHEOLA, VIC.

A Successful Fruitgrower.

Mr. J. A. Catto, of Rheola, Vic., who won the Colombie Cup for best export Apple packing in 1934, is a keen and capable orchardist. At the recent function at Bendigo, when Mr. Catto was presented with the cup, appreciated references were made to his pack, particularly by officers of the Dept. of Agriculture.

Mr. Catto is firmly of the opinion that only the best quality fruit should be



Mr. J. A. Catto.

permitted to be exported: he says "A case of blemished Apples costs the same to place on the markets abroad as the prime." In his orchard Mr. Catto has the following Apple trees: 1,100 Granny Smith, 2,000 Romes, 400 Dunns, 200 Yates, 200 L.P.; Pears: 800 Packhams, 400 B.B. and 100 Jos.

Jonathans, Rokewoods and Statesmen are worked on Apple trees for cross-pollination purposes. Limbs totalling over 1,000 have been worked to assist in fertilisation.

The crop prospects at present show a heavy setting of Grannies and L.P.; Romes and Yates, medium; Dunns, light; Pears, medium (some heavy). Portion of the Packhams suffered with the frost.

An account sale from London in 1931 shows prices which are very good. B.B. Pears realising 17/3 to 18/- per case, Packhams 20/-, Jos. 18/6 to 20/-. A total of 79 cases in one consignment brought back a cheque for £79/4/10 after paying all expenses.

At the last meeting of the Executive of the Victorian Fruit Marketing Association, cordial references were made regarding the services of Mr. Ernest Meeking, Senior Fruit Inspector, Victorian Dept. of Agriculture. The V.F.M.A. has joined with many other producers' organisations in requesting the Department to extend the period of Mr. Meeking's services for at least one year, he having now arrived at the official retiring age. Mr. Meeking is at the height of his powers of usefulness: the fruit grading regulations are about to be altered, and it would be a great pity if the services of this active and appreciated officer were lost to Victoria and the Commonwealth.

THE LATE MR. ZACHARIAH AKERS.

Writing under date December 31, the Shepparton Fruit Preserving Company pay a very fine tribute to the late Mr. Z. Akers, who died at Shepparton on November 29.

Mr. Akers was a director of the Shepparton Preserving Company, from its inception until his death, and occupied the position of chairman for four years. He put in valuable work in assisting to form the company, and took a very keen interest in its affairs. His death is deeply regretted by his fellow directors and staff and all feel they have lost a personal friend. Mr. Akers was 74 years of age when he died.

NEWS IN BRIEF.

The South Australian Minister for Agriculture has advised the passing of a Fruit and Vegetable Grading Bill, giving the Government power to draw up standards relative to freedom from pests and diseases.

The Council for Scientific and Industrial Research is investigating the subject of non-arsenical sprays for Apples and Pears.

The South Australian Trade Commissioner in London (Mr. C. A. McCann) recently reported that orders for the coming season's Apples had been placed at prices ranging from 7/6 to 9/6 c.i.f. and e. in the following varieties—Cleo., Dunns, Jons., Romes, Statesman, Stone Pippins, Rokewoods and Grannies.

VALUABLE NEW APPLE.

White Winter Pearmain.

Suitable for Local Market, Storage and Export.

At the recent meeting of the Australian Apple and Pear Export Council in Sydney, special reference was made by a Western Australian delegate to a variety of Apple which it was recommended should be permitted to be exported in 1935 in an experimental way.

The variety mentioned was White Winter Pearmain: the Council agreed to recommend that experimental shipments of this variety be made in the coming season.

Details of the variety are now to hand by courtesy of Mr. F. Simper, of the Westralian Farmers Ltd., Perth, as follow:—

The White Winter Pearmain is of longish Pearmain shape, grade: medium to large, and I would say the majority of the fruit would be 2½ to 2¾ inch. when grown under proper conditions. The color is greenish with a white bloom fading to greenish yellow when ripe. Flesh: Greenish white. Flavor: Aromatic.

This Apple we have found from experience, keeps as well, if not better, than any other Apple grown in this State. Nearly every year a few of these Apples are stored for the Christmas market here. They carry well and are highly recommended for the English market. In fact, our own representative was here from London about four years ago, and during a tour of the South-West advised the growers that it would be worth while to work over some of their own varieties with this particular variety of fruit.

CANADA PLANS BIG CONVENTION.

The tenth annual convention of Canadian Fruit and Vegetable Jobbers' Association is to be held in Winnipeg from January 21 to 23, when representatives from all over Canada will attend, as well as delegates from the United States, British West Indies and Africa. Canada has just imposed regulations under the Dominion Fruit Act, which require all fruit and vegetable dealers to become licensed, provide a bond if required, and conduct their business under fair practices. These rules are similar to the N.R.A. scheme in force in U.S.A. The convention will also consider the Natural Products Marketing Act, and its possible effect upon the fruit trade.

ARSENICAL RESIDUE ON FRUIT

Trouble in England with Victorian Pears.

CONSIGNMENT CONDEMNED AT CARDIFF.

THE SERIOUSNESS of the situation as regards arsenical residue on fruit for export, is specially referred to in a report just issued by the Agricultural Department, Victoria.

In sending the report, the Superintendent of Horticulture writes to fruit-growers' organisations thus:—

Please take every care to see that any export fruit in which your organisation is interested does not exceed the allowable limit of one-hundredth part of a grain per pound of fruit when submitted for export, as every endeavor will be made to prevent such fruit from being exported.

* * *

TWENTY-FOUR CASES of Victorian Broom Park Pears were condemned at Cardiff.

The Senior Sanitary Inspector, Public Health Dept., Pontypridd, wrote to the Victorian Trade Commissioner on August 31, stating re consignment of Pears condemned: "The skin of one sample of Pear contained one-ninth of a grain of arsenic per lb. of skin. A further batch of Pears was examined and the results reported in this case were one-twelfth of arsenic per lb. of skin, and one-fifty-fourth of a grain of arsenic per lb. of Pear, gross weight.

Experiments were undertaken to try and remove the arsenical deposit on the fruit skin by means of washing in running water and also scrubbing by nail brush. After this treatment two samples again showed one-twelfth of a grain of arsenic per lb. of skin.

The paper in which the Pears were wrapped also contained two-thirds of a grain of arsenic per lb. of paper.

* * *

The Cardiff authorities brought this matter under the notice of the Health Authorities of the City of Westminster, London, in which section Covent Garden is situated.

* * *

Commenting on the foregoing, the Minister for Health, Whitehall, London, writes:—

"It appears that the Pears (which were subsequently condemned) were imported by Messrs. Dennis & Cooper, Covent Garden, London, and that some boxes were consigned on July 16, to distributing agents in Cardiff, from whom they were despatched to various shops in Cardiff and Pontypridd.

"The Minister would be glad to learn that steps will be taken to prevent the exportation to this country of further consignments of Pears containing excessive quantities of arsenic."

SHIPPING CLAIM SUCCEEDS.

Faulty Carriage of Pears and Plums.

A report has been received by the Victorian Minister of Agriculture from the Agent-General that another successful claim has been made for damage caused by deterioration during transit of a consignment of Australian fruit. The "Clan Macdougall" sailed from Sydney early in March, 1934, with a consignment of Pears and Plums. It was alleged that on arrival at Melbourne temperatures had been reduced to 36 degrees, but that while loading operations the hold temperatures rose to 67 degrees, with an air temperature of 100 to 101 degrees. The average voyage temperature of 33 degrees was not reached until ten days later.

The condition of the Plums and Pears at the time of shipment was agreed to be excellent, but on arrival in England the fruit turned out to be in a very wasty condition. The agents (Messrs. White & Son Ltd.), claimed that the damage was occasioned through the rise of hold temperatures at Melbourne and failure to reduce them in sufficient time to restrict the excessive ripening of the fruit, and a claim was made for £2,402, which was subsequently settled out of court for £1,920.

Messrs. White & Son Ltd. wrote to their Victorian representative, Parnham Pty. Ltd., stating that "having regard to the expenses and delay which would inevitably have occurred in a long legal fight, in our client's interests (the Batlow Packing House and Cool Stores Co-Op. Society Ltd.), we have agreed to accept this settlement."

FERTILISING SALTS.

The waters off the Dead Sea in Palestine are credited with containing extraordinary vitalising properties, and a year or two ago a company was formed in England to extract potash and other by-products, in the form of mineral fertilisers, from its waters.

The waters contain approximately 25 per cent. of mineral salts, that have great medicinal value, and it is claimed that sickly people bathing therein will "pick up" with remarkable rapidity; the tired business men of Jerusalem are making great use of the Dead Sea for this purpose.

It is noticeable that fruit and vegetables in the area influenced by the Dead Sea grow amazingly, Oranges attaining a weight of 1½ lbs. and over. The air around the Dead Sea is said to contain 6 per cent. more oxygen than in any other open place in the world. It is conceivable that the Dead Sea region, besides becoming noted as a health resort, will soon become one of the leading sources for the supply of potash for fertilising purposes.

WORLD'S LARGEST APPLE CASE.

Holds 15 Tons.

As an advertising feature and a contribution to National Apple Week, which is observed all over the United States during November of each year the Yakima (Washington) shippers conceived the idea of packing 80,000 Apples in a huge fac-simile of the ordinary Apple box, and sending it on a triumphal railway journey across several States, finally reaching Detroit, where it was sold for \$200 to Detroit merchants.

The case was built on to a flat railway truck, and labels were painted on it exactly as upon an ordinary case of fruit for market.

It measured 13 feet long, eight feet wide and seven feet high, and contained the equivalent of 756 standard boxes of Apples. It took six men a full day to wrap and pack the Apples in the case. An architect, who is also an orchard owner, designed the case, which had to

be reinforced to give the mammoth fruit case sufficient strength, and specially large sheets of three-ply wood had to be obtained from the Pacific coast to make the case. To save the fruit from going bad en route, it was specially insulated. Full newspaper publicity along the route was given, and at every stopping place of the train people came in thousands to see the unusual case of Apples. As an advertising medium it was considered unique even for America.

This "stunt" recalls the fact that the Yakima merchants, in 1927, baked a ton Apple pie to celebrate Apple Week that year, and won the prize offered by the International Apple Association for the best publicity stunt submitted.

Supplementing the building and packing of the huge Apple case, films were made, and will be shown in every picture theatre in the country, with the addition of "shots" of fruit growing, packing and distribution to the consuming public, in an annual attempt to educate the public to eat more Apples.

SPRAY RESIDUES ON FRUIT

Methods of Removal

By A. G. STRICKLAND, M.Agr.Sc.

THE WASHING OF FRUIT for export to get rid of arsenical residue appears to be necessary because of health regulations in Britain.

Research is being conducted along the lines: (a) of finding a spray programme which will obviate washing the fruit, and (b) of discovering the best method of getting rid of the residue under our present spraying system.

Many growers have provided the necessary equipment for washing fruit for export.

By request, we are republishing the information on this subject from the "Journal of Agriculture of Victoria."

Under a British Health Regulation, persons offering for sale any foodstuff 1

mitted by regulation. Hand-wiping with a cloth and washing in water did not reduce the arsenic content to the amount required by the British Health authorities.

Hydrochloric acid is purchased in concentrated form and should contain 32 to 33 per cent. of actual acid. This commercial acid is very corrosive and must be handled with care. It attacks cloth, leather, and metals, unless quickly washed off with some alkali such as hydrated lime or baking soda. A supply of hydrated lime or baking soda therefore should be kept handy for use in case of accident. For washing Apples or Pears, this concentrated acid is used at the

due present and whether or not oil sprays have been used with the arsenic. The residue is much more difficult to remove when spraying oil also is present. Usually exposure to solutions of the strength already mentioned for a period of

one to two minutes

is sufficient. After treatment in the acid for the required period, all excess acid remaining on the fruit must be removed by rinsing in fresh water. It is extremely important that rinsing should be thorough, otherwise there is a danger of fruit injury. Whether a machine is used, or whether the fruit is dipped in wooden troughs, it is desirable that the rinsing section should have a continuous stream of fresh water running through it. This constant change of water in the rinsing bath should take place at such a rate as to ensure the use of two to three gallons of fresh water for each bushel of fruit. After leaving the rinse bath the fruit should receive a final spray or douche of fresh water. In order to determine whether the rinsing is being conducted efficiently, it is only necessary to apply the tip of the tongue to the calyx end of the fruit after it has received its final rinsing. A sharp stinging sensation will be experienced if the rinsing has not been sufficient.

Where washing and rinsing have been done properly, drying the fruit does not seem to be essential, as the moisture disappears while the fruit is in storage, particularly if wrapped. Where temperatures are high in the packing shed the fruit usually will dry before packing. In the case of machines, it is usual for a drier to comprise part of the equipment—either an air blast or the passage of the fruit over absorbent toweling is effective.

Properly carried out, the treatment will not injure the fruit in any way, but, on the contrary, often will result in more attractive fruit. The first necessary precaution is to sort out all decayed fruits before washing; passage of rotten fruit through the washing or rinsing solutions will result in the contamination of these solutions with mould spores. Such contamination must be avoided because it may result in a high percentage of fruits becoming infected with storage rots.

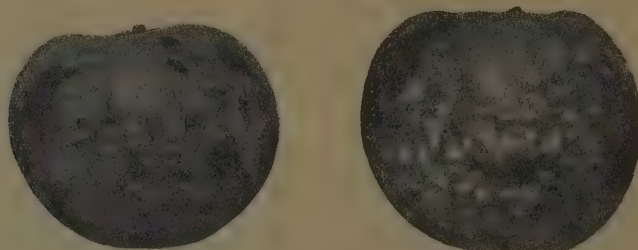


Fig. I.—Apples before washing. Arsenical residue, 0.018 grains per lb.

lb. of which contains more than 0.01 grain of arsenious trioxide, are liable to prosecution. The second objection to the presence of spray residue, or, in fact, any residue such as dust or insect-specking, is that such deposits give the fruit a bad appearance. Visible deposits undoubtedly lower the market value of the fruit.

The problem of removing these objectionable residues is one which must be faced by growers.

Various washing solutions have been experimented with, but by far the most successful is a dilute solution of hydrochloric acid. With this chemical it is possible to remove 90 per cent. of the residue without affecting the fruit. The method was tested at Harcourt on Apples which were heavily coated with residue. Treatment in $\frac{1}{2}$ per cent. or 1 per cent. hydrochloric acid reduced the arsenic content from an original amount of six times the allowable quantity to approximately one quarter of the quantity per-

rate of one to three gallons per 100 gallons of water, according to the density of the residue. Lightly marked fruit is cleaned quite effectively with a solution of 1 gallon of acid per 100 gallons of water, whilst more persistent residues require 2 to 3 gallons of commercial acid per 100 gallons of water.

The time required to clean the fruit depends mainly on the amount of resi-

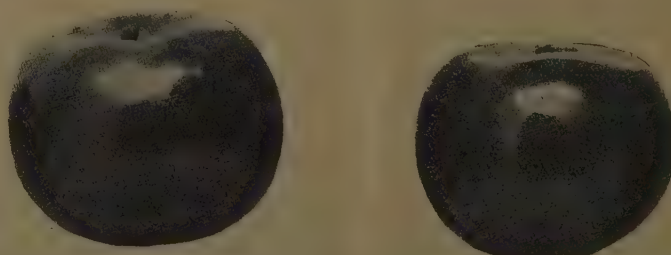


Fig. II.—Same Apples after washing and wiping. Arsenical residue, 0.002 grains per lb.

Rinsing Must be Thorough.

If rinsing is not thorough, a certain amount of acid must remain on the fruit. This excess acid will collect in the stem and calyx cavities and, although it ultimately disappears by evaporation, it may persist long enough to injure the fruit. This injury appears as a bleaching of the skin, with the bleached spots later becoming depressed. If arsenic is present, the areas turn black or dark brown. Such injury is due primarily to insufficient rinsing, and usually is caused by neglect or carelessness. To avoid this trouble, two points must be watched closely. Firstly, keep the acid up to strength. It will gradually get weaker as more fruit is treated, and should be changed for fresh solution daily. Secondly, take the utmost care in regard to rinsing, and ensure that all excess acid is removed.

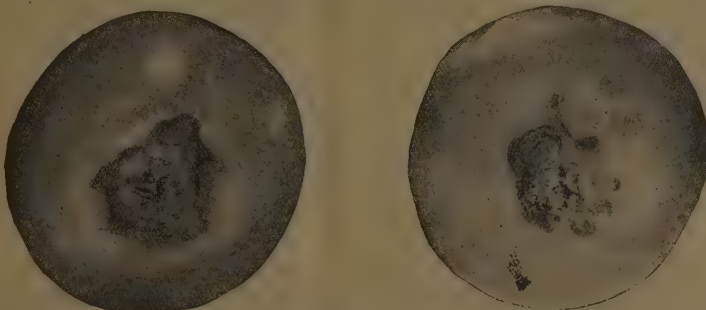


Fig. III.—Typical calyx injury due to incomplete rinsing after acid treatment.

A certain percentage of some Apple varieties have open calyx tubes extending down to the core. Some penetration of the acid into such calyx tubes is unavoidable. Usually the penetration is negligible, but, if fruit is deeply submerged in the solution, some chemical injury, followed by decay of the core may result. For this reason machines which deeply submerge the fruit are undesirable.

When fruit is hand-dipped, shallow boxes should be employed to hold the fruit, and these should be immersed only deeply enough to cover the top layer of fruit. It is advisable to use boxes containing not more than three or four layers of fruit when dipping on a small scale.

The equipment necessary

for this process depends on the quantity of fruit to be dealt with. If large quantities are to be cleaned, as in co-operative packing sheds, the purchase of a commercial washing machine is advised.

In the case of an individual grower packing his own crop, a pair of dipping troughs will give quite satisfactory results. Such equipment consists essentially of two wooden troughs (one for holding acid and the other for water) placed end to end, with one sloping draining bench between them, and an-

other at the end of the water trough. The size of the troughs will vary, of course, with the volume of fruit to be treated. A small grower could use ordinary washing troughs or wooden tubs in which fruit would be dipped one box at a time.

A somewhat larger equipment consists of long troughs which will accommodate a number of boxes of fruit simultaneously. In this case, the boxes of fruit are floated along the acid trough and successively removed at the end, drained for a few moments on the central draining board, and then floated through fresh water. Where boxes are used as containers for dipping Apples they require a loose-fitting cover to the box in order to prevent the fruit from floating out. Pears usually are too heavy to float.

The draining shelf between troughs should be long enough to accommodate

half as many boxes as are being dipped simultaneously, and should slope towards the acid trough. The boxes are pushed along the acid trough at such a rate as to keep them exposed to the solution for one to two minutes. After draining for half a minute on the central board they are then pushed through the water trough. As stated before, the water trough should have a constant flow of fresh water. A final drenching with a hose is given to each box of fruit as it emerges from the rinsing bath.

Whether the washing treatment is carried out on a large or small scale, it is important that fruit should be treated

immediately after picking.

If washing is deferred for any length of time the fruit develops secondary wax which greatly impedes the removal of residue.

Any new practice such as the one under discussion is seldom popular at its inception. It is certain, however, that any added costs which the method may involve will be amply repaid by the improvement in the appearance of the fruit. Fruit washing is in general use in United States both for local and export purposes, and in South Africa it is now compulsory for all exported Apples and Pears to be washed in hydrochloric acid.

QUALITY FIRST.

Argentine Regulates Exports.

As evidence of the competition being experienced on all markets, by which the demand for quality is requiring new methods of marketing, the Government of the Argentine has recently taken an important step towards improving the position on the fruit markets of England and North America. In future, she will permit the export of only high quality fruit. In "the good old days" merchants were not restricted as to quantity or quality shipped, but foreign buyers now have such a choice that only the best quality will interest them, and Argentine, along with all other big exporting countries, is forced to meet present-day conditions and conform to standards. She therefore now requires all orchards to be inspected and certified, all fruit to be inspected before shipment, all packing to be done according to her new regulations, minimum standards enforced for Grapes, Apples, Pears, stone fruits, Melons and Citrus fruits. These standards relate to size, color, maturity, wrapping, type of case and label. The label must show grade and quantity, and be printed both in Spanish and English, and show clearly that the contents are the produce of Argentina. In this way the government expects to not only secure high prices for all fruit exported, but also to increase its foreign trade and develop new markets.

THE BEST APPLES FOR CIDER.

In England, France and Germany, where the making of cider has developed into a fine art, many orchards are planted solely with cider varieties. The cider-making quality of each variety has been carefully determined by practical methods and satisfactory blends worked out for different varieties. It appears that no single variety contains the requisite qualities alone, the value of the Apple for cider-making depending upon its chemical composition, particularly its acid and tannin content.

In America, where cider is consumed in considerable quantities, every hardware store displays cider pressers for sale to households which prefer to extract the cider from Apples grown in their own yards or to buy up quantities during the glut season. The more common varieties used for cider making, especially in the middle-west and southern States, are Winesap, Jonathan, McIntosh, Delicious, White Winter Pearmain, Winter Banana Wealthy and Golden Russet. Prof. W. F. Walsh, of the State Experimental Station, Geneva, N.Y., states that these varieties are suitable, either alone or blended, but such varieties as Rome Beauty, Duchess, Alexander, Wolfe River and all Crab varieties, cannot be satisfactorily used for cider.

CODLIN MOTH.

New Spray Being Tested.

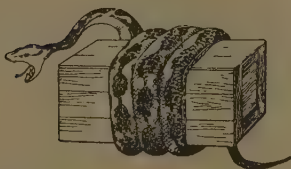
A report, coming in recently from Doncaster, states that a new type of codlin moth spray, designed to kill the pest without leaving any residue on the outside of the fruit, had been discovered and was being tested for practical results. By a mixture of red biniodide of mercury and potassium iodine, it is claimed that a mercurial salt had been obtained which, used with an oil similar to sulphenated castor oil, remained effective as long as arsenate of lead, but did not leave any residue on the full-grown fruit. It has been given preliminary trials at Shepparton and Orange, and the results obtained are claimed to be very satisfactory. Should the new spray prove to be, in practice, what its advocates claim for it, it will receive a welcome from all Apple growers.

When the matter was referred, by our representative to the Government Entomologist (Mr. R. T. M. Pescott), he stated that the matter is being carefully investigated by the Department. Their chemistry section is analysing and studying the new compound and subjecting it to extensive tests. The Department will not comment upon the question of its value at present, but as soon as satisfied with the tests, will announce the result of their investigations, in the interests of the industry.

Greengrocer: "Any horse-radish, mad-am?"

Young Bride: "No, thank you. We have a car."

PYTHON



WIRE STRAPPING PTY. LIMITED

The

PYTHON MACHINE

is an ALL AUSTRALIAN invention, made in Australia from Australian materials, and is the only machine of its type on the world's market. Is hand-automatic, with a pre-determined tension, whereby all sized cases can be tied efficiently and well.

EFFICIENCY, SPEED, ECONOMY
Will Reduce Wire Costs.

Python Wire Strapping Pty. Ltd.

21 HOWARD ST., NORTH MELBOURNE
42-44 MEAGHER ST., CHIPPENDALE, SYDNEY

Tasmania— Orchard News and Notes.

Mersey Valley Fruit.

It appears that the Mersey Valley was selected for orcharding by Messrs. Keene & Keene in about 1900, and most of the orchards now in bearing were cleared and planted in the year 1905. A cool store of about 20,000 boxes capacity was erected at Spreyton about 1915, but operated only for one season with varied success. As most of the Spreyton orchards were planted out during the boom stage of orcharding, seedling stock could not be secured in sufficient quantities to meet the demand, with the result that Northern Spy stock predominates.

Only Jonathans have developed really well, and it might be stated that Mersey Valley Jonathans are equal in color and texture to the product of other countries on this variety, but others have not progressed satisfactorily, with the result that generally speaking the yield per acre is low.

A co-operative company of growers was formed in 1918, and successfully operated a packing house until 1931, when the plant was bought out by Clements & Marshall Pty. Ltd. The packing house has been enlarged and this company is now turning out an excellent pack under the "Herald" brand, which has secured favorable notice on world markets. The Canadian style of packing is exclusively adopted, as it has been found inadvisable to attempt to pack dumps and Canadian style in the same shed.

For the coming season, it is certain that production will be in the vicinity of 33 per cent. below normal, and in this connection, such varieties as Cox's Orange Pippins and Dunns will be very short. Sturmers are showing signs of being affected with black spot, and other varieties will produce lighter crops than usual.

Ranelagh (15/12/34). Mr. Thos. A. Frankcomb writes as follows. It is rather difficult to obtain an accurate estimate of the crop, because one can not tell just how much the black spot will reduce the total, but as far as I can tell the average crop throughout the district will be approximately the same as last year. Jons. are heavy, S.T.P. and S.P.M. good, Cleos, F.C., S.P. and Alf. very patchy.

The only item of interest is that C. H. Tutton is erecting a plant and building

at Huonville for the treatment of timber for Apple cases. It is their intention to use hardwood timber, except for the tops, which will be of pine. The sample cases which they have on exhibition compare very favorably with the imported pine, and, provided their bulk article is equal to sample, then these cases will, I feel sure, find a ready market. (The cases, of course, are the Canadian type.)

TASMANIAN BERRY GROWERS TO RECEIVE ASSISTANCE.

A special grant of £5,000 has been made by the Commonwealth Government to berry growers in Tasmania, as a temporary relief, but cannot be repeated after this year. Mr. Lyons' telegram to the Premier of Tasmania reads as follows:—

"I have to advise that the Commonwealth Government has decided to make an emergency relief grant of £5,000 to growers of Raspberries and Gooseberries in Tasmania this season because of their necessitous position. This money will be given to the Small Fruits Advisory Committee of the Agricultural Bureau of Tasmania for distribution among growers on a basis deemed equitable by the committee. The distribution will be subject to Federal audit. The Government intends immediately also to arrange with the Council for Scientific and Industrial Research to investigate the possibility of transporting fresh berries to the mainland, particularly to Sydney, in a marketable condition and of preserving them for retail sale. If this be found practicable a substantial trade as a set-off to the lost export market should be possible. The Government wishes it to be understood clearly that no Federal contribution of money may be expected in future, and that the present grant is purely to relieve the necessitous condition of many small growers."

PATENTS
GEORGE A. ÜREN
PATENT ATTORNEY
HEINTY HOUSE, 499 LITTLE COLLINS ST.
MELBOURNE.

Orchard Tax in Tasmania.

The "Fruit Board Bill" Passes Both Houses in Tasmania and is Now Law.

Maximum Tax 2/- per acre

Expiring in Three Years Unless Renewed.

UNDER THE FRUIT BOARD ACT, which became law in Tasmania, considerable powers have been conferred on the new organisation.

Under the provisions of this Act of Parliament, certain other Acts, notably the Codlin Moth Acts and the Apples and Pears Acts, are repealed, and the new organisation will administer the pest control programme previously controlled by local councils.

The Fruit Board Act deals exclusively with Apples and Pears. All growers having two acres or more must register within two months of the proclamation of the Act. A roll will thus be compiled of growers will have votes for the election of Board members as follows:—

One vote for 10 acres, 2 votes for 25 acres, 3 votes for 50 acres, 4 votes for 100 acres, and 5 votes for over 100 acres. Five votes is thus the maximum. Voting at elections is compulsory, penalty £2. The Board to be elected will consist of six growers from the south of Tasmania and three from the north.

No person is eligible for election to the Board if he is a director of any trading company which carries on the business of buying, selling or shipping of fruit; but a director of a co-operative company whose principal object is the packing of fruit for its shareholders shall not be disqualified by reason of the fact that such company also buys, sells or ships fruit in the interests of its shareholders.

Tax up to 2/- per Acre.

Growers are liable to pay up to 2/- per acre. Amount of tax to be decided annually.

The method of collecting the tax is to be provided for by regulation.

Elected for Three Years.

Members elected to the Board are to hold office for three years, but at the expiration of each year from the first election three of the members shall retire. The Board will decide which of its members shall retire at the end of the first, second and third years respectively. Retiring members are eligible for re-election.

The Board will elect its own chairman.

Powers of the Board.

The Board may engage in any business in relation to the shipping or marketing of fruit and may act as agent

for fruitgrowers for the shipping, marketing or selling of fruit.

With the assent of growers (on a two-thirds majority) the Board may, on behalf of assenting growers, enter into contracts for the shipping or marketing of fruit, allocation of shipping space, supplying of case materials or equipment, etc.

If the Board decides by a two-thirds majority that any question shall be decided by the growers, the Board may take a poll in the prescribed manner.

Interstate Trade.

For the purpose of facilitating trade the Board may frame regulations (for submission to the Governor) regarding the standards and methods of packing fruit; grading methods as to variety, size, soundness, color, maturity, etc., markings on cases, dimensions of containers, handling, stacking and loading methods; labels, duties of inspectors, etc.

Every inspector under this Act has power at any reasonable time to enter and inspect any place in which he has reason to believe is any fruit intended for interstate shipment, to inspect such fruit, to take samples, and to detain or seize any fruit not up to regulations.

No person shall pack fruit for interstate shipment unless the fruit is graded and packed as prescribed. Penalty £5.

No person shall ship any fruit interstate unless passed by an inspector, or ship any fruit which an inspector has refused to pass. Minimum penalty £5: maximum £100.

For wilfully altering any grade mark, etc., penalty £50 or three months' imprisonment.

General Provisions.

The Board shall advise the Minister on all matters relating to the production and marketing of Apples, Pears and all fruits.

Growers of fruit other than Apples and Pears are liable to pay an inspection fee of not more than 2/- per acre.

The Board may recommend to the Governor the making of regulations for pest control.

Growers of all classes of fruit must furnish production statistics, etc., to the Board on request.

The Governor may make regulations under and for the purposes of this Act.

Expiry in Three Years.

At the expiration of three years from the commencement of this Act, the Board shall hold a poll of fruitgrowers, and unless a majority vote in favor of continuance, the Act shall cease to have effect as from March 31, 1938.

BERRY FRUIT PRICES.

Overproduction of Raspberries in Tasmania.

Because of the overproduction of Raspberries in Tasmania this season, and the tendency to sell at lower prices than those fixed by the Fruit Industry Sugar Concession Committee, thus embarrassing berry growers in the mainland States, the chairman of the Committee, Mr. A. R. Townsend, stated that prompt action would be taken by the Committee against any canner which, or manufacturer who bought fruit at prices below fixed prices. Disregard by any processing organisation of the Committee's minimum prices would lead to offending organisation forfeiting all rights to share in domestic sugar rebates, and export bounties for the season.

THE VERSATILE BANANA.

Fifty years ago, the white residents of the West Indies considered Bananas only fit food for the natives or their pigs, but to-day this fruit is the mainstay of the islands. Not only are shiploads exported, but by-products are being made from the otherwise useless offals. After having delivered its fruit, the tree is cut down to make way for the young suckers sprouting from its root. When still green the tree is cut into logs and fed to cattle and pigs, which favor the succulent wood. Even after the sap has dried out of the tree its uselessness has not ended, for the fibrous bark yields a strong thread, which the natives deftly convert into ropes, hats, floor mats and other useful articles. Fresh leaves serve as plates around the family dining table, and are also woven into what would correspond to our ladies' shopping bags. A dozen other uses are made of the ubiquitous Banana tree.

DROUGHT AND IRRIGATION.

The worst drought on record has just been experienced in Weld County, Colorado, and fruit farmers had to organise and fight the drought effects strenuously. Half a million dollars' worth of water was pumped for the principal crops to save three and a half million dollars' worth of fruit. Altogether 322 plants were in operation bringing up enough water to irrigate 36,000 acres, and more than 100 new wells were hurriedly drilled to meet the disastrous conditions brought about by the drought.

VALLO

Patent Codlin Moth Tree Bands



Certain Death to All Grubs That Attack Fruit Trees

It is estimated that of all Codlin Moths more than 80% are females and that a female moth lays as many as 50 eggs. On the assumption that only 50% of the eggs are fertile, a kill of 100 grubs in a tree band is definitely responsible for the prevention of 2,000 moths in the first year.



The above photograph (shows the actual size) inner side of an 8-inch section of "Vallo" Patent Codlin Moth Tree Bands in which 80 or more dead grubs or caterpillars can be seen. This, however, does not represent the full number of the kill, as this photograph shows only one set of corrugations. The Band is actually a double trap as it not only traps the grubs in the corrugations lying immediately next to the trunk of the tree (as shown above) but a similar number are trapped and killed in the second series of small passages which are formed by the smooth outside section of the Band against the corrugated section.

Your Orchard is not adequately protected until fitted with "VALLO" Patent Codlin Moth Tree Bands.

Manufacturers:

VICTOR LEGGO & FARMERS LIMITED
222 QUEEN STREET, MELBOURNE

BRANCHES: SYDNEY — BRISBANE — ADELAIDE — PERTH



N.S.W. to Supplement the Federal Grant for Mandarin Growers

Proposed Citrus Organization on an All-Australian Basis

A CONFERENCE of citrus growers in Sydney in December was informed by the Premier (Mr. Stevens) that the N.S.W. Government had decided to supplement on a £1 for £1 basis, the £8,515 grant which the Commonwealth Government had made available to assist Mandarin growers. Among those in attendance was the Minister for Agriculture (Mr. Main).

The Premier advised that the use of the grant would be restricted to re-soiling, purchase of fertilisers, re-working of established Mandarin trees with approved citrus varieties, replacements of old Mandarin trees with other fruit trees, and utilisation of areas which were under Mandarins for any other approved purpose.

It was further stated that the State was continuing the efforts to have lifted the embargo on the export of citrus fruits to New Zealand.

Regarding the organisation of the citrus industry. It was stated that the other States were being approached to investigate methods of organisation, the Premier having given an assurance that the N.S.W. Government would be prepared, on receipt of a specific scheme from the industry itself, to give it legislative effect, if necessary, and to implement it with Government action.

The importance of adequate grade standards was stressed at the conference.

After an amendment that the meeting simply express its opposition to compulsory control had been defeated, the motion was carried by a large majority. Although various speakers differed on minor points, they all opposed control. There seemed general agreement on the point that difficult as was the position of the industry at the present time the return to normal conditions would be delayed rather than expedited by the introduction of any scheme of compulsory control.

ASSISTANCE TO MANDARIN GROWERS.

The Minister of Agriculture for N.S.W. (Hon. Hugh Main, M.L.A.), advises that the State Government has approved of the grant of £8,515 made by the Federal Government for the assistance of Mandarin growers in N.S.W., being distributed for the following purposes:—

- (1) Resoiling; (2) Purchase of fertilisers; (3) Re-working of established Mandarin trees with approved citrus varieties; (4) Replacement of old Mandarin trees with other fruit trees; (5) Utilisation of areas at present under Mandarins for any other purpose approved by the Committee.

To consider applications and distribute the funds, a Central Committee has been formed consisting of Mr. C. G. Savage, Director of Fruit Culture, chairman; Brigadier General J. Heane, and Mr. C. A. Holswich, of the Fruitgrowers' Federation of N.S.W.

In order to facilitate the work of the Central Committee, District Sub-Committees, consisting of the local District Fruit Inspector and local Mandarin growers nominated for the purpose, will be appointed. These local District Sub-Committees will be in a position to furnish reports on individual applications to the Central Committee, and also advise as to the appropriate method of assistance in the light of local conditions.

CITRUS ORGANISATION.

M.I.A. Growers Oppose Control Proposals.

Brief reference was made in the last issue of the "Fruit World" to the resolution carried at Griffith, N.S.W., on the subject of legislative control. The full text of the resolution proposed by Mr. J. E. Ward, representative of the Griffith section of the M.I.A. on the Board of the N.S.W. Fruitgrowers' Federation, is as follows:—

"This representative conference of citrus growers and packers of Griffith, New South Wales, viewing with alarm the attempts now being made to foist compulsory bureaucratic control on the citrus industry, desires to bring to the personal notice of Mr. Lyons, Prime Minister of Australia, the following resolution:—

"Having experienced the chaos caused and the costly futility of bolstered-up

industry by Governmental interference with the natural adjustment of price levels to costs of production and of supply to demand, declares its absolute opposition to the restriction by artificial means of production, marketing, and export of citrus fruits and any attempt to deprive the citrus producer of the traditional British right of the private individual to the ownership of his property and freedom of contract in the disposal of his product:

deprecates any attempts of Governments to evade the clear interpretation of Section 92 of the Constitution, which states that trade between the States shall be absolutely free;

condemns unreservedly any attempt by Federal or State Governments to promote compulsory pools, and marketing boards for citrus fruits with statutory authority; and

expresses determination to uphold British freedom at any cost."

EXPORT OF ORANGES.

Recommendation of N.S.W. Citrus Committee.

The Citrus Committee of the N.S.W. Fruitgrowers' Federation has decided to request the Federal Government to investigate the causes of the unsatisfactory arrivals of Oranges on overseas markets.

Other recommendations include: enquiry into stem-end rot problem and the best means of preventing its development in ships' cold storage; licensing of packing sheds; Government inspection at packing sheds and orchards; regulations for handling and correct stowage; and the utilising only of ships with approved refrigeration facilities.

The value of pre-cooling was emphasised, the need being expressed for more suitable equipment and adequate refrigerator cars for the latter Railways Dept. will be approached.

Regarding overseas freights, it was recognised that ship owners were under disabilities because of excessive charges. It was suggested that any reduction made in this connection be passed on in freight concessions.

N.S.W. ORANGE EXPORT.

New South Wales Oranges by the "Stuart Star" showed a decided improvement on recent shipments, with the exception of some wasty, dry mould which is difficult to understand as the fruit apparently was originally of good quality.

The condition of the N.S.W. fruit in the "Otaio" was mostly soft.

COLORING EARLY NAVELS.

Packing House Manager Condemns the Practice.

At a citrus packing house recently, the manager directed attention, but in a somewhat apologetic way, to the citrus coloring chambers where Washington Navels were artificially colored with ethylene gas.

"The re-coloring of Valencias late in the season is quite alright," said the manager, "but we use the chambers for coloring early Navels and I'm not proud of the fact."

"Then why continue to do so?" was the obvious question.

The manager shrugged his shoulders. "Others do it, and we have to follow. If I had my way I would forbid the coloring of early Navels which have not developed their proper sugar content."

"Your Navels pass the 'C.C.' test?"

"Yes, but the standard is low and I'm certain that the public on tasting these handsome but tart Oranges are put off from buying further supplies."

* * *

If others are thinking in similar terms, it will soon be possible to set a standard for selling early Oranges which will please the public and not cause a revulsion against this class of fruit.

THE WORLD'S LARGEST ORANGE ORCHARD.

What is claimed to be the world's largest individual Orange estate is the Zebediela, off the main railway line at Naboomspruit, in South Africa, the home of the famous "Z" brand of Oranges. It lies on a gradual slope beneath a surrounding group of hills, in which are situated several large dams, one of which, the Mogoto Dam, contains over 700 million gallons of water, irrigating the whole western side of the estate. In addition to many miles of earthen channels operated by gravitation, the "Z" estate includes over 80 miles of concrete water furrows. The working of this immense estate requires the services of 150 Europeans and 2,000 natives during normal periods, supplemented by 200 white girls during the packing season, the latter working on piece-work rates. Fertilisers and manures call for an expenditure of £30,000 per year.

Two varieties of Oranges are grown, Navels and Valencias. It takes six months to pick the full crop, and necessitates the transport of 14,000 boxes per day to the packing sheds. In addition to horse-drawn vehicles, some 15 miles of light railways are utilised. Fumigation, an important precaution against pests and diseases upon such a vast estate, calls for the expenditure of thousands of pounds per annum on the

600,000 trees comprising the estate. Should a tree be reported as "off color," it is entirely enveloped with a canvas sheet, and special powder is forced into the tent, which kills off the germs within a few hours.

Naturally, the method of handling the enormous pack is interesting. After the Oranges are picked they are first stored in the basement for three days' wilting. From thence an endless belt conveys them to machines, which wash, dry and brush them slowly, and when they reach the sorting tables they run between two long rows of expert female sorters, who select the fruit for export from that intended for local consumption in South Africa. They are then machine-graded, wrapped and placed in cases by the girl operatives, and conveyed to the nailing machines ready for transport to the docks. The local oranges are bagged and distributed to markets throughout the country.

To handle the enormous number of cases and bags produced on the estate, two full train loads leave the private siding daily, each representing a 350-ton load. Within the next few years it is computed that Zebediela will export a million cases annually.

Gosford (Dec. 6, 1934). — Central Coast citrus growers decided by 170 votes to 80 to request the N.S.W. Government to appoint a Board of Control for the industry.

It is proposed that the contemplated Board shall comprise one representative from each of a number of district councils, which shall be made up of three members elected by postal ballot.

It is further provided that a poll of the growers concerned shall be taken before any section of the fruitgrowing industry be brought under the suggested Act.

* * *

At a representative conference of growers at Griffith, the proposals for a Board of Control were rejected by a large majority.

S. Aust. Apples for Scandinavia.

Mr. McCann, Trade Commissioner for South Australia in London, has signed a contract with the Scandinavian Co-operative and Wholesale Society for the delivery of 30,000 cases of South Australian Apples direct to Stockholm by April 25. He has either signed contracts or has received offers for a further 50,000 cases for Scandinavia.

FARES PLEASE.

A Scotchman, who questioned the fare asked by the taxi-driver, got very excited and exclaimed, "Now don't you try to rob me, young man. I haven't been riding in taxis for five years for nothing."

"No," replied the driver, "but I bet you've had a very good try."

**SPRAY
HOSE**

**BURST PROOF
ALL RED**

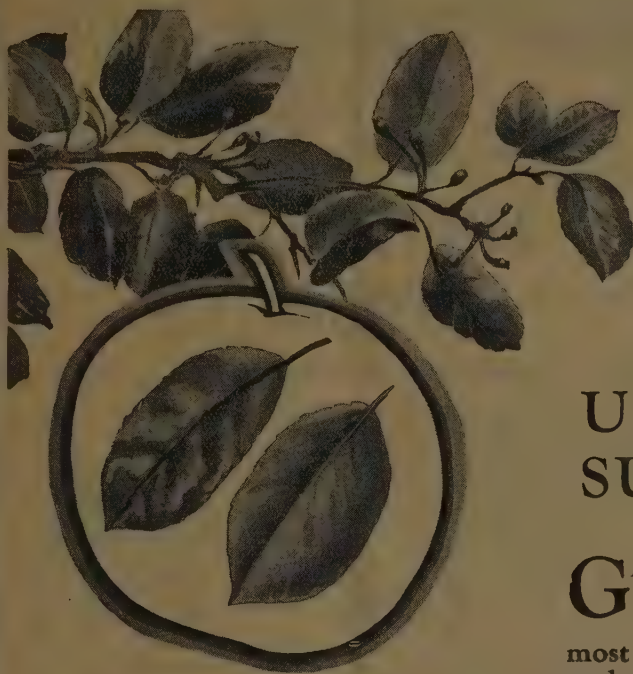
HAND-MADE

BY

**HARDIE
RUBBER
CO. LTD.**

"EVERY INCH AUSTRALIAN"

Obtainable at All Stores.



LEFT.—Sprayed with Inferior Oil.

RIGHT.—Sprayed with Gargoyle WHITE Spraying Oil.

USE THE SAFE SUMMER SPRAY

GARGOYLE WHITE SPRAYING Oil gives safe and lasting protection; because, firstly, it is made from the most highly-refined medicinal oil base, and, secondly, it spreads evenly and thoroughly over the leaves and bark.

In addition to being a sure safeguard against scale and all other insect pests, Gargoyle WHITE Spraying Oil has a beneficial effect on the general health of the trees. Its "emollient" action improves the flow of sap, and the "breathing" of the leaves.

These claims are facts, proved by an increasing number of orchardists throughout this country.

Gargoyle WHITE Spraying Oil





WIRE TYING MACHINES

WIRE SEAL STRAPPING

FRUIT PACKING

REQUISITES

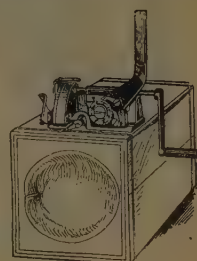


For those who annually pack, say, 5,000 cases upward, Gerrard offers Model "TI" Wire Tying Machine, used with O.D.S. re-wound coil wire strapping in standard lengths coils of 3,500 feet. The cheapest system in the long run.

SPEED — ECONOMY — BACKED BY TROUBLE-FREE GERRARD SERVICE.

The GERRARD model "B" Wire Tying Machine is known throughout Australia wherever fruit and other cased goods are packed. Installed on a low annual rental. Model "B" machine is used with O.D.S. straightened and cut Wire-Seal Strapping, supplied in all required lengths for fruit cases, in bundles of 250 straps or double bundles of 500 straps.

DEPENDABLE — EFFICIENT — BACKED BY TROUBLE-FREE GERRARD SERVICE.



For use with Model "TI"—

Gerrard Model 9 machine suspension and strapping bench combined.

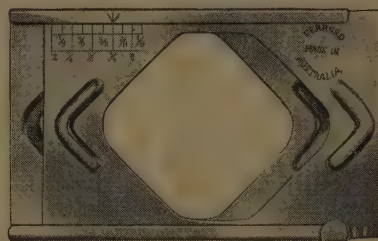
FRUIT PACKING REQUISITES



GERRARD "SERVICE" FOUNTAIN STENCIL BRUSH—
Convenient and economical, Price £1.

GERRARD SAW EDGE CORRUGATED FASTENERS—
Available in all wanted sizes.

"ADECO" FRUIT CASE LID PRESS—
Sizes for each type of case, prices from £3/17/6.



GERRARD "SERVICE" FRUIT SIZE GAUGE—
Weight 2½ oz., sizes fruit of any shape accurately. Price 5/-.

GERRARD WIRE-TYING MACHINES CO. PTY. LTD.

119-125 Hawke Street, West Melbourne, C.3.
Telephones F 3694—F 3695.

269 Sussex Street, Sydney.
Telephone M 3436.

19-25 Makerston Street, Brisbane.
Telephone B 5609.

107 Pirie Street, Adelaide.
Telephone C 7952.

Telegraphic Address:

"GERWIRETY," Melbourne, Sydney, Brisbane, or Adelaide.

Perth: W. H. EVANS,
W.A. Bank Chambers, William Street.

Townsville: SWALES ENGINEERING WORKS,
Flinders Lane.

Hobart Launceston Wellington, N.Z.



ALL THESE GOODS ARE MADE IN AUSTRALIA

Cool Storage In Australasia

Victorian Cool Stores' Association

QUARTERLY MEETING.

The 68th quarterly meeting of the Orchardists' and Fruit Cool Stores' Association of Victoria was held on December, 11, 1934, at 18 Market-street, Melbourne.

There were present Messrs. J. J. Tully (chairman), F. Moore (Blackburn); Fankhauser (Burwood East); J. Tully, senr. (Doncaster West); F. A. Bloom (Doncaster East); J. H. Lang and H. M. McLean (Harcourt); G. H. Sprague (Hastings); J. J. Tully and F. Petty (Orchardists); J. G. Aird and W. McKinley (Ringwood); C. H. Wallace (Wantirna); L. G. Cole and H. J. Wiloughby (Tyabb); E. H. Hatfield (Tyong); F. Pyke (Southern Fruit Growers' Association); W. A. Webb (Doncaster Association). Mr. J. B. Mills was present by invitation.

Apologies were received from Messrs. F. J. Byrne, A. E. Hocking, R. Lawford and H. Pump.

Sales Tax.—Arising out of the minutes, Mr. Cole explained to delegates that under an amendment to the Sales Tax Assessment Act, cool stores should have no difficulty in obtaining exemption from Sales Tax on refrigerating plant and parts thereof. It may be necessary when making application for exemption to forward a certificate as evidence of the exempt purpose for which the parts are required.

Prices for Canning and Jam Fruits.—This question was again discussed, and it was resolved that if any member was able to furnish definite proof that factories were evading the payment of fixed prices, the evasion should be reported to the Southern Fruitgrowers' Association. It was felt that this Association was the best body to deal with this matter and was to be notified of the above resolution.

Arbitration Case.—Mr. J. G. Aird reported that there had not been any award made, as yet, by the Conciliatory Commissioner, respecting the Engine Drivers' Case.

Relief Grant.—Correspondence on this question was received. A discussion took place regarding the position of growers who had sold fruit to other

growers and were unable to determine how much of their fruit had actually been exported. It was resolved that the matter be left in the hands of the Executive to take whatever action they thought necessary to bring about a satisfactory basis of distribution between growers concerned.

Fruit Statistics.—Correspondence from the Department of Agriculture on this question was received.

Growers' Protection re Export Consignments.—This matter had been referred to the Victorian Exporters' Handling Committee, but no reply had been received as yet. It was decided that the Executive take this matter up when the Victorian Exporters' Handling Committee had replied.

Duty on Apples.—A letter was received from the Southern Fruitgrowers' Association, requesting support in a move to have the Tariff Board hold an enquiry into the rate of duty on Apples imported. The aim of this Association was to have the present rate increased from 3/- per cental to 4/- per case.

Resolved that this Association support the request for an enquiry by the Tariff Board, without stipulating any particular rate of duty.

It was left to the Executive to take appropriate action.

Supplies for Stores.—Mr. Moore reported that at the present the Executive was unable to place any concrete proposals before the meeting, but that all benefits arising from any arrangements which the Executive was able to make with vendors of supplies, would be passed on in full to members. He requested full support for any proposals submitted, and stated that the Executive hoped to be able to circularise members, giving details of proposals, in the near future.

Scald on Apples.—Delegates from Harcourt exhibited samples of Delicious Apples affected very badly with a brown scald blemish, and expressed the opinion that it was due to immaturity at picking time. Delegates from various localities related to their experiences with this complaint this season. The con-

sensus of opinion was that immaturity at picking time accentuated by seasonal conditions was the cause of this scald blemish.

Cool Storage of Fruit.—Mr. J. B. Mills, who was present by invitation, then addressed the meeting. He said that he had been charged with having attached the principle of cool storage. This was quite incorrect. His remarks, which had been made at the Sydney Conference of the Australian Apple and Pear Export Council, were intended as a contribution to a discussion on the future well-being of the fruit industry, and as a suggestion to fruitgrowers generally, to consider the marketing of fruit, particularly Apples, from an Empire aspect. He considered that it was quite possible that, in years to come, it would be definitely advantageous for growers, throughout the Empire, to get together and arrange a marketing programme that would supply all the markets of the Empire with fresh fruit throughout the year. It was incorrect to say that he was an advocate of inter-Dominion trade. This was a matter which would be decided, when the time came, by fruitgrowers and fruitgrowers only.

After answering questions relating to inter-Dominion trade, Mr. Mills was thanked by the President for his address.

Crop Reports.—Delegates from different districts gave their opinions regarding crop prospects for the coming year:—

Summary:

Harcourt: Apples, 50 per cent. crop; Pears, mostly good.

East Burwood: Apples, fair; Pears, mostly good.

Doncaster: Apples, 60 per cent.; Pears, good; Peaches, 100 per cent.; Plums, light.

Ringwood: Apples, 60 per cent.; Pears, 75 per cent.

Somerville: Apples, 60 per cent.; Pears, 70 per cent.; Plums, 80 per cent.

Wantirna: Apples, fair; Pears, good.

Tyabb: Apples, only fair; Pears, 75 per cent.; Plums, good.

Reduction of Interest.—Mr. Moore reported that pending the result of certain negotiations, the State Government was not in a position to make any statement regarding this matter.

Flood Relief Fund.—The Executive recommended that, in view of the disastrous effects of the recent floods, and the dire necessity to which many of the sufferers were reduced, a donation of \$5 be forwarded to the Relief Fund. Recommendation adopted.

Annual Conference.—Left in the hands of the Executive to arrange venue for the next Conference.

The meeting was then closed.

Modern Storage and Transport.

Great Change Imminent

So important has the question of the best form of cold storage of fruit become that experiments are being watched with great interest in both England and America, and a study of the various methods by all concerned in the production, canning, transport and storage of fruit, is warranted.

Sir Frank Smith, Secretary of the Department of Scientific and Industrial Research (England), paid a tribute to the late Sir William Hardy, in the Hardy Memorial Lecture, which he recently delivered before the British Association meeting at Aberdeen. During the last 17 years of his life, Sir William Hardy had been engaged in research work on the storage and transport of foodstuffs, and was recognised as an enthusiastic and scientific authority upon the problem. Sir William Crookes' famous warning of 1898, that "England and all civilised nations stand in deadly peril of not having enough to eat—as mouths multiply, food resources dwindle," has been partly met by the efforts of the scientist and the engineer, and the problem has been changed from a peril to a matter of scientific organisation. The ques-

tion is no longer how can we produce enough food, but where shall we produce it—at home or overseas?

Since Great Britain cannot possibly produce enough food for her millions of people, transportation and storage are of the most profound importance.

Experience has taught that cold storage, in some form or other, is the best of all preservatives and no longer do we need to rely upon pickled meat and eggs, rancid butter and rotting vegetables and fruit, for the refrigerating engineer has made possible the transfer of fresh foods across the globe in such manner that they arrive in almost as good condition as when packed in their country of origin.

"Whereas, 60 years ago," stated the lecturer, "there was no refrigerating machinery and no cold storage space on ships, to-day the refrigerated space used in bringing foodstuffs overseas to Great Britain alone amounts to no less than 100 million cubic feet, or the equivalent of a floating cold store 20ft. high, 50ft. wide and 20 miles long. In addition, the capacity of public cold stores in Great Britain amounts to half of this enor-

mous space and her output of artificial ice is 1½ million tons per year."

A study of one single fruit alone, the Apple, of which Great Britain consumes about six billion per year, is well worth while. Apples vary in their tolerance for cold and it is largely the British Apple's intolerance for cold that makes Great Britain rely upon Apples from overseas to supply her wants.

Sir William Hardy's solution to the storage problem is commonly known as "gas storage" by which the life of the stored Apple is slowed down by increasing the percentage of carbon dioxide in the atmosphere of the cold store to a particular amount, whilst the temperature of the store is maintained well above freezing point. This discovery has opened up a new era in the storage of English Apples and is even being extended to eggs, meat and other perishable commodities and English producers are not slow in taking advantage of it. Although the discovery is only a recent innovation there are to-day no fewer than 32 gas stores in operation with a total capacity of 7,000 tons, and the number is being rapidly increased. Moreover, although merchants were at first sceptical of gas-stored fruit upon its first appearance, it has now a definite preference over ordinary cold-stored fruit.

But while the general principle of the value of gas-stored fruit is now beyond

CHEAPEST POWER

for all purposes

Thousands of RUSTON-HORNSBY Airless Injection Cold Starting Crude Oil Engines—the most economical Prime Movers known—are generating electricity or driving agricultural and industrial machinery on Farms, Stations and Orchards and in Cool Stores and Factories, &c., where cheap power is a necessity. The Engine is an entirely British production and is a development of the original Akroyd-Stuart patent. Users of the Ruston Engine secure the benefits of the Builders' unrivalled experience and resources.

Made in Horizontal and Vertical Types in sizes from
— 10 to 1,200 BHP. —

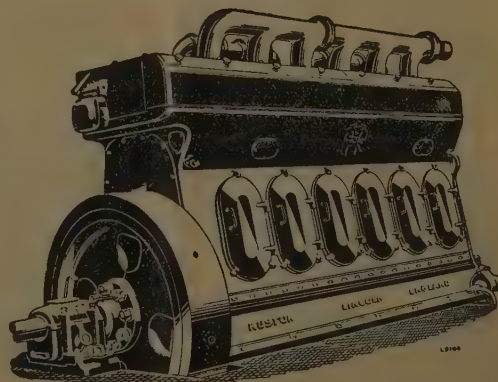
Low Consumption of Low Grade Fuel Oil is Guaranteed

WHATEVER YOUR POWER PROBLEM REFER IT TO—

Ruston & Hornsby (Australia) Pty. Ltd.

REGISTERED OFFICE: 174-180 KING STREET, MELBOURNE.

Branches at Sydney (10-14 Young Street) and Brisbane (Barry Parade).



dispute, the possibilities of its application and adaptation to all sorts of transportation conditions are being assiduously explored. In America the principle is receiving scientific attention, in part at least, from the aspect of fruit in railway transit. There the fruit production areas are vastly remote from the great centres of population and consignments are handled, not in case lots, but in thousands of case lots and in train and car lots and special refrigerator cars are in daily use where the product requires transporting over long distances. There, gas treatment promises to considerably cut fruit losses in transit and carbon dioxide provision in refrigerator cars may soon become the common practice, decreasing substantially the present annual loss of millions of dollars by rots and other diseases developing in the fruit while in transit.

Experiments have shown that the greatest development of transit diseases occurs within the first 24 hours after the fruit is loaded into the cars, that while pre-cooling the fruit in cold storage before shipment stops most of this early disease development, the treatment by carbon dioxide gas in the cars has practically the same effect as pre-cooling. This discovery is of immense value to growers to whom pre-cooling facilities are not available.

The same, or a similar effect, can be got by pre-cooling by ice or by using blowers to circulate cold air within the cars, but this requires special equipment and takes time when the growers wish to rush their fruit to market. With gas treatment immediate shipment and delivery in perfect condition is practicable.

But this is not the whole story of the refrigeration and transportation problem. Developments along these lines are still in their infancy. The above method may be satisfactory in large producing centres like California, where whole trainloads are made up at one starting point, but there still remain the great number of small, scattered or isolated growers who have to rely upon simpler methods of treatment for their fruit to ensure its arrival at distant markets in something approaching the condition of their more fortunate competitors. Ships that have been insulated and fitted for ordinary refrigerator cargo will need to be made over for this new system or replaced by new specially built ships. For the isolated grower the air-cooled or ice-cooled railway cars must be retained, but as an indication of the improvements made and predicted in such transportation, other new developments are announced, and constant experiments are being undertaken. One American company has recently patented a system by which frozen water ribbon is claimed to be superior to crushed ice, in that it more quickly absorbs heat than does crushed ice, and if cars can be fitted so that automatic control of car temperatures can be obtained without human

attention, a forward step in cold storage transportation will be made.

In the field of deep water carriage of perishable foods, vacuum packing of cheese and butter is claimed to add appreciably to the landing condition of the cargo, giving a better market price, and consequently an advantage in profit to the grower, even after allowing for the slight extra cost of packing. It is further claimed that the vacuum method can be applied to meat and other perishable commodities.

But further studies are necessary before a workable scheme of any new method of transporting perishable foods can be perfected. Reverting to Apples, it is yet to be determined just how much carbon dioxide will be necessary for the various varieties of fruit and how desert varieties may differ from culinary Apples. Then too, citrus fruits, Melons, stone fruits, berry fruits, and all other varieties, will certainly require special and different treatment. The maintenance of flavor will need study and experiment and possibly the color problem during transit may arise. But out of this maze of investigation and scientific experimentation must come improved methods of handling and transporting perishable foods so that nature will be unmade or remade and that science may contribute its ultimate to the welfare of mankind.

A Modern Packing House.

The picture below is a view of one of the most modern packing plants in California and represents the new Lemon packing house of the Upland Lemon Growers' Association. The building is of steel and concrete construction 240 ft. x 315 ft. in an L shape. It gives storage room for 450 car loads of Lemons. Modern packing and handling machinery is installed, and the working conditions of the employees are ideal. The Upland Association is one of the oldest Lemon packing plants in Southern California, having been operating for more than forty years, originally in wooden buildings.

COOL STORE FOR KYABRAM.

At a conference of fruit growers of the Kyabram district with the Minister for Agriculture (Mr. Allan) in the early part of December, the question of Government assisting the district in obtaining a cool store was discussed in relation to an increase of £1 per ton being paid by the cannery to the growers. Mr. Allan stated that the Government is favorably impressed with the improvement in the finances of the cannery, and he believed that they would favorably consider a request for a cool store.

After discussion, it was resolved that the cannery be asked to pay £1 per ton more for fruit, and that surplus profits be earmarked for a cool store. It was also decided to organise a deputation to the Premier at an early date, representative of the whole district, which Mr. Allan agreed to introduce.

NEW COOL STORE IN W.A.

Packing Shed for Bridgetown.

At a recent meeting of Apple growers, held in Bridgetown (W.A.), it was unanimously decided to go forward with a proposal to erect a central packing shed and cool store for the district, and a committee was appointed to confer with a financial organisation and report back at an early date. It was felt that the Mt. Barker plant, erected some years ago, fully justified its existence, and the Bridgetown district was handicapped, both by inconvenience and by reject losses, in not having a central packing shed, and, in view of the adverse reports received upon W.A. fruit last season, steps must be taken to ensure the exporting of fruit that was color-graded and as attractively packed as was similar fruit from the Eastern States. The Director of Agriculture (Mr. Sutton) promised to recommend local inspection, but warned growers that a high standard must be set and maintained if the value of the packing shed to the district was to be demonstrated.



A modern Californian Citrus Packing House. (See letterpress above).

1935 Fruit Crop Prospects

REPORTS FROM VARIOUS STATES

VICTORIA.

THE Superintendent of Horticulture (Mr. J. M. Ward) after examining reports from district orchard supervisors, advises as follows, on December 1, 1934:—

In some localities the promise for a Jonathan crop is only fair to light at present, but in other places there are reasonably good prospects. The Jonathan crop for the whole State promises to be below normal.

Granny Smith Apples appear to have set well, and at the moment it looks as if we will harvest a full crop.

Other varieties, such as Yates, Rome Beauty, Democrat, Dunn's, London Pippin, Cleos., and Stewarts vary in crop according to the district in which they are grown, and other conditions. It appears, however, that we are likely to harvest a reasonably good crop, but not the heavy one that was anticipated earlier in the year.

The average annual Apple crop for Victoria over a period of five years is 1,880,000 cases, but a normal crop for the State would be approximately three million cases. Judging by the present conditions, the Apple crop for 1935 season promises to be in the vicinity of two million cases, of which between 600,000 and 700,000 cases should be available for export; but at present it is not anticipated that more than 600,000 cases will be shipped.

Pear Crop Prospects.

In regard to Pears, these, like the Apples, are suffering from attacks by black spot, and the extent to which the spot affects the crop from a marketing point of view depends upon future weather conditions.

As many of the exportable Pears will come from Northern districts, where the disease is not in evidence to the same extent as in the South, and as the hot, dry weather is usually experienced during December, January and February, it is anticipated that the fungus will not develop to any marked degree.

The Pear crop also varies in production, some areas are lighter than others. Of the export Pears, Beurre Bosc appears to be the heaviest cropper this year; other good export Pears that produce well are Winter Nelis, W. Cole, Packham's and Howells. There appears to be a greater variation with the W.B.C., and we may have only a fair to light crop of these. On the other

hand, where trees are carrying only light crops, the fruit should be of good size and thus fewer will be needed to fill a case and so increasing the number of cases to be harvested.

The annual average crop of Pears for the State over a fine year period is 940,000 cases; this, of course, includes Pears for canning purposes. The prospects are for a crop of approximately 800,000 cases, therefore we are not likely to be much below the average.

A summary of the detailed information is as follows:—

Ardmona and Mooropna.—Pears, mainly W.B.C., 35 per cent.; Peaches (canning), Sims, Phillips, G. Queen, full crop; Pullars, 80 per cent.; Thieles, 60 per cent.; both latter affected green aphid; (dessert), full crops, Briggs, High, Hale, Zerbe. Plums, medium. Prunes, failure.

Tatura and Toolamba.—Pears, W.B.C., 45 per cent.; Jos., 50 per cent.; Pack. and B.B., 80 per cent.; district average, 50 per cent. Export varieties plentiful here. Peaches (canning), Pullars, Goodmans, Thiele's, G. Queen, heavy; (dessert), Mayflower, Briggs, Hale, Elberta, heavy.

Kyabram and Merrigum.—Pears, medium. Peaches (canning), Levis, Pelora, Sims, Phillips, Goodmans, Pullars, Thiele's, heavy; many mid-season Peaches grown here; (dessert), heavy. Prunes, fair.

Tongala Stanhope and Girgaree.—Canning Peaches, heavy. Plums and Prunes, light. Almonds, Nonpareil, Ne plus ultra, I.X.L., medium. Almonds are grown commercially here.

—W. Nunn.

Bamawm and Echuca.—Peaches, heavy, hail marked. Pears, B.B., 100 per cent.; Packham, Jos., W.N., med.; W.B.C., light, 25 per cent. hail marked. Plums and Prunes, light to med.

—J. K. Muir.

Shepparton District.—Peaches, canning and dessert, 90 per cent., slight hail damage. Almonds, 90 per cent. Pears, Nelis, Jos. and Pack., 90 per cent. (hail damage); W.B.C., 35 per cent. black spot and hail. Apples, 80 per cent. clean. Plums and Prunes, 70 per cent. clean.

Peninsula and S. Eastern (Somerville, Tyabb, Hastings and Moorooduc).—Apples: Alf., Duke, Grav., G.S., Statesman, 90 per cent.; Reinette, 95 per cent.; Sturmer, 80 per cent.; Stewarts, 70 per cent.; Del., 65 per cent.; Jon., R.B., 60 per cent.; Dem., Dunns, L.P., Roke, 50

per cent.; Williams Fav., 40 per cent.; Yates, 35 per cent. Average crop about 65 per cent., black spot prevalent. Pears: D'Anjou, Cap., G.M., Kieffer, Pack., Howell, 75 per cent.; W. Cole and Nelis, 70 per cent.; B.B., 65 per cent.; B. Park, Jos., 60 per cent.; W.B.C., 50 per cent. Average about 70 per cent., black spot showing. Plums, heavy. (Red Hill, Main Ridge, Balmarring): Apples, average, 66 per cent. Pears, average 40 per cent. Black spot bad. Plums, heavy.

—R. F. Wadson.

Diamond Creek, Hurstbridge, Arthur's Creek, Strathewen, Panton Hills, Templestowe.—Apples and Pears, average 50 per cent. Damage by floods and black spot.—G. M. Fletcher.

Vermont.—Apples, Jon., 35-40 per cent.; R.B. and F. Crown, 20-25; Statesman, 60-80 per cent.; Del., 10-50 per cent.; Yates, 50-60 per cent. Black spot general. Pears in all districts, whilst affected by spot are generally 10 per cent. better than Apples and less variable.

Croydon and Ringwood.—Apples, med.; G.S., good. Black spot prevalent.

Glen Waverley.—Apples and Pears, med. to heavy.

Burwood, E., Wantirna, Scoresby.—Apples, medium, varieties include G.S., Jon., Yates, Del., F. Crown, Warrior, R.B., Stewarts and Statesman.—F. V. Roberts.

Warrandyte.—Apples: Jon., G.S., 75 per cent.; L.P., Yates, 80 per cent.; R.B., 60 per cent. Results of cross-fertilisation apparent. Pears: W.B.C., Jos., 60 per cent.; B.B., 40 per cent.; W.N., 55 per cent.; W. Cole, 70 per cent.; Packham, 75 per cent. Spot prevalent on Packhams, medium, Cole and Jos.

Healesville and Lilydale.—Apples, med., and fairly clean. Pears, med., spot fairly prevalent on W.B.C., B.B., and Packham, med. on W. Nelis. Plums, medium.

Doncaster and District.—Peaches, heavy. Pears, W.B.C., Pack., W.N., 70 per cent.; W. Cole, 80 per cent.; Jos., 50 per cent.; B.B. 4 per cent. Spot medium. Apples medium. Spot fairly prevalent.—W. A. Rolfe.

Harcourt District.—Apples: Cleo. and R.B., 100 per cent.; Jon., 66 per cent.; G.S., 60 per cent.; L.P., 80 per cent.; Dunn's, 33 per cent. Pears: W.B.C. and W. Cole, 75 per cent.; B.B., 66 per cent.; others light.

Strathfieldsaye.—Apples, Cleo., 100 per cent.; R.B. and L.P., 80 per cent.;

Jon., 66 per cent.; G.S., Del. and Dunns, 50 per cent. Pears: W.B.C., 80 per cent.; B.B., 66 per cent.; Packham, 50 per cent.; others light. Spot prevalent.

Sedgwick.—Apples, med. Spot showing up. Pears, med. Fairly clean.

Campbells Creek, Elphinstone.—Apples and Pears, light.

Rheola.—Apples and Pears, med. to good, clean crop.—J. Thomlinson.

Warragul and Drouin. — Apples, 60 per cent. crop. Pears, 50 per cent. Black spot noticeable.

Bunyip, Garfield, Narnargoona. — Apples, 70 per cent. Pears, 50 per cent. Spot prevalent.

Pakenham Districts.—Apples, 60 per cent. Pears, 50 per cent. Spot present.

Officer and Beaconsfield.—Apples, 46 per cent. Pears, 40 per cent. Black spot reduced yield.—G. W. B. Davidson.

Horsham Districts.—Apples about 75 per cent. crop; Romes, Cleos. and Crowns heaviest; others, Jon., Dunns, Del., K. David, clean. Pears, good crops of W.B.C., B.B., Jos., clean. Peaches and Plums, med.

Amphitheatre, Elmhurst, Mt. Cole. — About 75 per cent. crop of Apples; best showing on G.S., R.B., L.P., Sturmer and Jon; lighter crops on Cleo., King David and Del. All fairly clean.

Pomonal.—Apples: Cleo., 90 per cent.; Jon., 50 per cent.; Dunns, 50 per cent.; R.B., 75 per cent.; G.S., 60 per cent. Spot showing.—C. W. Wills.

Apples and Pears.

Albury.—In the Lavington centre, wet and cold conditions prevailed throughout November. Some areas suffered hail damage. Jonathan, Cleo., Romes, and London Pippin appear to be holding best.

Pears—Williams and Packhams light.

Batlow.—Unfavorable weather caused heavy shedding, particularly of Delicious and Stayman's Winesap. Good to heavy crops of Jonathans and Granny Smith are in sight; generally, prospective yields of all varieties range from medium to good.

Pears patchy, W. Cole light to heavy, W. Nelis light, W.B.C., Packhams, B.B., fairly good.

At Tumbarumba there is a fair showing of fruit, particularly the late-blooming varieties; some hail damage.

Bathurst, Blue Mountains, Etc. — Granny Smiths, Jons., McIntosh Red, London Pippin and Cleos. have cropped satisfactorily.

Pears, light to moderate.

Frost is said to have affected Romes, Del. and some of the Tasma crops at Little Hartley: light yields are indicated. Other varieties are mostly very good.

At Running Stream, Granny Smith and London Pippin shed heavily. Around Blackheath, Jon, London Pippin, King David and Granny S. are said to have the best prospects.

Fruit growing well at Rydal, especially G.S.: good yields expected from the principal varieties.

At Newbridge, where about 50 per cent. of trees are less than seven years old, the Jonathan and Gravenstein crops are outstanding. Around Ilford, G.S., Jon. and King David have set the best crops.

Hail damage throughout various localities is severe; from 50 to 75 per cent. of fruit in some orchards (approximately 1500 acres) has been destroyed and about 100 acres are slightly damaged.

Goulburn. — Despite heavy shedding, good crops indicated. Fungus diseases prevalent in some orchards. On the average, Grannys are carrying the best crops but Del., Jon, Fameuse, McIntosh, London Pippin, Rome B., Dunn's, are also well cropped.

Pears, light to good.

Moss Vale, Burradoo, Camden, Etc. — Heavy crops set. Shedding has lightened the crop.

Pears, setting irregular. Williams, Packham and Howell light to fair.

In the Camden, Oakdale, and The Oaks localities, heavy crops, with the exception of Jons. in some orchards, appear general, particularly of G.S., Grav., McIntosh, K.D., Mobbs Royal and Carrington. At Wedderburn indications are that yields will be well above average, G.S. being outstanding. Good crops are in sight in Lakesland orchards, Grav. and McIntosh promising particularly

Pome Fruit Crop in New South Wales, 1934-35

FORECAST OF PROSPECTIVE YIELD AND SURVEY OF CROP CONDITIONS AS AT DECEMBER 5, 1934.

Information relative to conditions of pome fruit in New South Wales has been received from 17 Fruit Inspectors (Field Officers of the Department of Agriculture), and from 30 honorary crop correspondents.

During recent months the weather was adverse. Excessive rains, high winds and scattered hailstorms occasioned much damage. Fungus diseases developed.

Following the light crop of last season, Apples (especially Granny Smith) are carrying mostly good settings, and in some localities the average yield is expected to be high.

The Pear crop varies, and is of a patchy nature. Some good crops are in sight, but many are light. Shedding of fruit was heavy during November and early December.

It should be noted that the forecast refers to the fruit at present in sight. As

the crop is subject to reduction through various causes, e.g., hail, winds, pests, diseases, etc., until harvested, it will be understood that smaller yields than those indicated hereunder may result.

A. A. WATSON,

Director of Marketing.

December 19, 1934.

Apples.

Variety.	Prospective Yield. Bushels.
Granny Smith	575,000
Jonathan	359,000
Rome Beauty	128,000
London Pippin	120,000
Tasma	74,000
McIntosh	48,000
Gravenstein	83,000
Delicious	119,000
Pomme de Neige	50,000
Cleopatra	27,000
Carrington	13,000
King David	32,000
Buncombe	8,000
Dunn's Seedling	12,000
Yates	10,000
Commerce	4,000
Miscellaneous	138,000
TOTAL	1,800,000

Pears.

Williams	111,000
Packham's	92,000
Winter Cole	31,000
Beurre Bosc	33,000
Beurre de Cap	10,000
Winter Nelis	9,000
Howells	7,000
Josephine	15,000
Keiffers	3,000
Miscellaneous	35,000
TOTAL	346,000

THE EFFICIENT

PYTHON WIRE STRAPPING MACHINE



Has a pre-determined tension, giving a uniformity of tie unequalled by any other machine, and by this means will tie as many cases with 10,000 feet of wire as any other machine, and more efficiently.

No loss from broken wires.

EFFICIENCY IS PYTHON'S PASS-WORD

Python Wire Strapping Pty. Ltd.

21 HOWARD ST., NORTH MELBOURNE
42-44 MEAGHER ST., CHIPPENDALE, SYDNEY

well. G.S. and Jon. are carrying the best crops around Mittagong.

The very wet season adversely affected trees on low-lying land in the Tallong district, many orchards unsprayed. In well-cultivated orchards the recent very heavy fall reduced prospective yields.

Jons., full crop in the Penrose centre, Yates are very heavy and will need thinning. Gravenstein, G.S., and Del. are well cropped, whilst Tasma, Rome B., London Pippin and McIntosh, are carrying from 60 to 80 per cent. of a full crop.

Northern Tableland. — Good to heavy crops of the principal varieties of Apples are reported from most centres in this district. Pears variable: Williams, Packham, W. Cole and B.B. light to fair.

At Arding, heavy yields of G.S., Del., Tasma, McIntosh, K.D. and Dunn's S. expected. Grav., G.S., L.P., Del., McIntosh, Pomme de Neige, Rome B., Tasma, Jons. and Cleos., should yield well around Armidale; all varieties above average. G.S. and Jon. carrying good crops at Kentucky, but on Rome B., Del., Tasma and Grav. there is a much lighter setting.

Orange. — In this centre, the Granny Smith crop is reported to be heavy, and most other varieties, noticeably Jon., Del., L.P., Pomme de Neige, Rome B. and Cleo., promise to yield well. Some damage occasioned by hail in a few orchards.

Pears—Packhams best, others fair to medium.

Young. — Very wet and stormy conditions favored the spread of black spot and extensive damage resulted, particularly in the Kingsvale, Maimuru and Waterview centres. A heavy shedding occurred during recent cold and windy weather on Jon., Cleo., Rome B. and Tasma at Kingsvale. G.S., Rome B., Cleo., L.P. and Grav. around Maimuru showing black spot. Jons. shed heavily since early December. In the Waterview district, Cleo, G.S. and K.D. set heavy crops and other varieties are mostly fairly good. Pears — Around Young, crops moderate; at Kingsvale and Waterview, Williams and Packhams light.

At Holmwood (Cowra) some very good crops of Apples are in prospect, particularly Del., G.S., Jon, Cleo. and Dunn's. In Pears, Kieffer, Josephine, Williams and Packham should yield well.

Murrumbidgee Irrigation Area. — In the main, satisfactory growing conditions prevailed and the principal varieties of Apples, viz., G.S. and Jon., are carrying good crops. King David and others also showing for satisfactory yields.

Pears, at Griffith, heavy crops of Williams and Packhams; at Leeton, Pears variable, Williams and Kieffer, heavy.

Coastal.

Hawkesbury. — Fair quality Allsopps harvested and marketed. Yields aver-

age about four bushels per tree. Carrington, Trevitt and Willie Sharp are well cropped, other varieties medium.

Kenthurst-Glenorie. — Carringtons are very small, and it appears likely that the bulk of the crop will be sold for factory use.

Kurrajong-Richmond. — Practically all classes of Apples fair to medium.

Parramatta. — Development of Apple crop not satisfactory, fruit undersized.

Windsor. — Almost all varieties carrying normal crops, but the area under pome fruit trees is not extensive.

WESTERN AUSTRALIA.

Fruit Crop Estimates Season, 1934-35.

Out of 20,760 acres used for the production of fruit (exclusive of Grapes) in Western Australia, 59 per cent., or 12,297 acres are under Apple trees, and this season a record crop is in sight. Only twice has the million bushels mark been exceeded—once in season 1928-29, when 1,122,713 bushels were harvested, and again in 1931-32, with 1,014,054 bushels. Last season 1933-34 the total amounted to 990,049 bushels.

This season I estimate the crop will reach 1,250,000 bushels, and if weather conditions are propitious, with no excessive heat waves, nor hail damage to upset calculations, the estimate is a conservative one. Not only is the crop a record one, but (again weather permitting), it will be of high quality, the fruit being distributed evenly throughout the trees, the "bunchiness" so noticeable last season being almost non-existent.

My estimate of various kinds of fruit crops for season 1934-35, and those obtained in 1933-34, are as follow:—

	Season 1933-34, Actual. Bushels.	Season 1934-35, Estimated. Bushels.
Apples	990,049	1,250,000
Pears	94,500	85,000
Apricots	50,553	60,000
Peaches	53,320	60,000
Plums	67,307	75,000

—(C. W. Wickens, Superintendent of Horticulture), 28/12/34.

Bridgetown (20/12/34). — Re crops, I find that speaking generally, the Bart. crop is fair to light and the later Pears also, some crops are quite a failure; Plums fairly heavy; Apples, except Jons., light, this includes Dunn's, Rokes, Granny Smith and Rome Beauty. Prices offering very poor, and hedged round with all sorts of restrictions re size, color, etc., no hail so far, but weather is very threatening. Crops generally will be late this year.—F. S. Willmott.

SOUTH AUSTRALIAN FRUIT CROP PROSPECTS.

(Compiled December 11, 1934, by A. G. Strickland, M.Agr.Sc., Deputy Chief Horticultural Instructor.)

APPLES. After the heavy setting which occurred in 1933, the prospects for the coming season indicate a light to medium crop of Apples. Certain scattered areas, which experienced a substantial crop failure in 1933-4, owing to the incidence of October frosts, are showing fair to good prospects for this season, and if these areas fulfil their promise, the State crop will probably exceed the normal expectations for an "off" year.

In the northern areas, which comprise the Barossa, Angaston, and Clare districts, an average to good crop is expected. Cleopatras have, in most instances, set well.

The northern portion of the Mount Lofty Ranges should bring forth a light crop only, although it is noted that fair to good crops are expected from areas which were frost affected in the spring of 1933. From 50 to 60 per cent. of a normal crop is estimated.

In the southern section of the Mount Lofty Ranges, the prospects indicate a light crop, estimated at approximately 50 per cent. of normal.

The occurrence of hail and of black spot aggravated by the humid conditions in November, will certainly have a detrimental effect on crops in parts of the Mount Lofty Ranges, although it is difficult at the present juncture to

CASES

Pine, new, slightly stained, otherwise perfect, long bushels and dumps, special price for truck lots, 6½d. per case in shooks, F.O.R., Bright.

Forests Commission, Melbourne.

TASMANIA

Leading Australian Firm of Fresh Fruit Exporters.

Manufacturers IXL Jam and Canned Fruits.

Hop Factors—Largest Cool Stores for Hop Storage in Commonwealth.

All Orchard Supplies available at all times.

Agents for—Associated Evaporated Apple Manufacturers, Eagle, Star & British Dominions Insurance Co. Ltd., Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osaka Shosen Kaisha.

Correspondence Invited.

H. JONES & CO. PTY. LTD.

Mobara.

estimate the full effect of these factors. There will, however, be some reduction in the quantity of fruit of export quality. Generally, Cleopatras, Jonathans, and Rome Beauties are carrying the best crops.

In the south-eastern districts a fair blooming occurred, but setting was generally unsatisfactory. The prospects are for a very light crop, estimated at 25 per cent. of the normal, and there will be very little, if any, surplus for export.

Present indications are that for the State as a whole, a light to medium crop will be harvested. The better production expected from areas which were frosted in 1933-34, will, to a large extent, be offset by recent hail and black spot damage. Generally, Rome Beauties are cropping well, and will materially assist in raising the total State crop.

It is estimated that the total yield for the State should, on the present showing, be in the vicinity of 600,000 cases.

Pears.—Pears are generally disappointing this season.

In the northern districts the crop is exceptionally poor in many instances, and throughout, only a 50 per cent. to 60 per cent. crop is anticipated.

The Mount Lofty Ranges have experienced a very patchy setting in spite of encouraging blooming, and crops will probably be one-third to one-half of the normal return.

Light crops are expected in South-Eastern districts, and in the Murray Valley where the principal variety is Williams' Bon Chretien, crops are 20 per cent. to 30 per cent. below average.

Apricots.—With the exception of Murray Valley districts, where crops are approximately 25 per cent. above average (though the fruit will be small), the expectations are for a three-quarter crop generally. Setting was patchy in northern areas, resulting in a medium crop only, and in the Mypolonga Irrigation Area, the prospects are for light to fair crops only, due partly to recent hail damage. In south-eastern districts, there has been a heavy setting, but crops have been appreciably affected by "shothole."

Cherries.—Limited areas of the State are devoted to Cherry growing. The harvesting of the crop has already commenced, and reports indicate a patchy return. Portions of the Mount Lofty Ranges have an average crop, but in other parts the yield is very light, approximating only one-quarter of a normal crop. Late varieties are exceptionally light.

Peaches and Nectarines.—In the Murray Valley, high winds have caused losses. The crop is approximately 75 per cent. of the normal, but fruit will be large.

Central and northern districts report good to heavy crops, ranging from 15 per cent. to 30 per cent. above normal.

Generally speaking, the crop should exceed slightly the normal crop of about 150,000 bushels.

Plums and Prunes.—These fruits promise a good average crop. In northern districts, the return is expected to be 10 per cent. to 30 per cent. above normal. In central districts which produce a large portion of the State's crop, average yields are indicated.

Berry Fruits.—Recent rains have, in most instances, benefited these fruits, and Raspberries, Currants, Gooseberries, and Strawberries, are carrying fair to good crops. Strawberries exceeded normal expectations at Clare in the north, but first crops in the Mount Lofty Ranges suffered to some extent through heavy November rains, half the crop being lost in some instances.

Figs.—In all districts the first crop has been light to fair, but it is too early to forecast prospects for the main crop. Owing to the scarcity of overwintering Capri Figs in some localities, difficulties are being encountered in regard to the fertilisation of the Smyrna crop.

Citrus.—In view of the fact that the shedding of small fruits is still proceeding, prospects for the coming season are not yet clearly defined. In the northern and central districts, a good crop is indicated, whilst in the Murray Valley areas, the heavy preliminary setting suggests that the crop will be above average.

Almonds.—Fair to average crops are expected throughout the State as a whole. Yields are expected to be higher than normal on the Adelaide Plains, but in the southern portion of the Mount Lofty Ranges, the prospects are patchy,

and generally speaking, 20 to 30 per cent. below normal. The average State yield is slightly more than 6,000 cwts. of nuts annually.

Walnuts.—Reports indicate that the Walnut crop will be only moderate. Bacterial blight has been severe in some localities, and will materially reduce the quantities harvested.

Grapes.

Drying Grapes:

Currants.—Good average crops are promised throughout the Murray Valley, and other districts; in the northern districts, and in the southern Mount Lofty Ranges, more than average yields are expected.

Sultanas.—Earlier in the season, Sultanas promised well, but owing to scattered frost damage, and appreciable losses through Anthracnose, the crop as a whole will be slightly less than normal.

Gordo Blanco.—This sort is grown largely in the irrigated areas, and present appearances point to an average crop.

Wine Grapes:

Doradillo.—The prospects are for a crop of approximately 20 per cent. more than the average.

Other Sorts:

Generally, wine Grapes are showing good average crops, and in southern districts are expected to yield 20 per cent. above the normal, despite early injury to vines occasioned by the Curculio Beetle.

Tomatoes.—Glasshouse production has been heavy, and the total crop is expected to be 25 per cent. higher than the average, although the season is reported to be closing earlier than last year. Quality has been good.

(Continued on page 46.)

The Port of HULL

... is ...

THE FRUIT CENTRE

Serving a Population of over 13,000,000 in the North and Midlands

REGULAR SAILINGS TO CONTINENTAL PORTS provide unrivalled MARKETS for re-export of EMPIRE FRUIT.

Specially Constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS.

RAPID HANDLING, QUICK DESPATCH, LOW CHARGES, and THE BEST PRICES. SEND YOUR FRUIT TO HULL.

TEN MODERN DOCKS entirely owned and managed by

The London & North Eastern Railway

Full information supplied by:—

AUSTRALIA.—BURNS, PHILP & CO. LTD.,

7 Bridge Street, Sydney.

312 Collins Street, Melbourne; and Branches.

“Willow” Brand Woodwool

Prevents the Bruising of Fruit

Overseas Receivers specially recommend the use of “Willow” Brand Woodwool on the Tops and Bottoms of Fruit Cases.

“Willow” Brand Woodwool is made in Australia, being treated under a patent process, and securely packed in Bales containing 1 cwt.



View of a portion of the Willow Products Co.'s factory at Launceston, Tas., showing raw material ready to be treated

Special Qualities Suitable for Fruit Packing

FRUITGROWERS! Use “Willow” Brand Woodwool and ensure the safe arrival of your Fruit on the Home Market

Special types of Woodwool also manufactured for the packing of Grapes, Tropical Fruits, Confectionery, Eggs, Crockery and Ironmongery, and all heavy goods.

— Special Grades for Toy Manufacturers and Upholstering. —

SOLE MANUFACTURERS OF “WILLOW” BRAND PATENT PROCESSED WOODWOOL.

Willow Products Co.
Newstead, Launceston

For full information and prices, apply:—

VICTORIAN AGENTS: THE AUSTRAL IMPORT & EXPORT CO. PTY. LTD.,

Tasmania House, 317 Flinders Lane, Melbourne.

Phone: Cent. 715

N.S.W. AGENTS: HERMANN HAEGE LTD., 379 Kent Street, Sydney.

Phone: MA 5122.

DRIED FRUITS—NEWS and NOTES

NEW ASSOCIATION FORMED.

South Australian Growers Meet.

At a meeting held in Adelaide late in December, consideration was given to the formation of a new organisation. Mr. W. E. Sims, of the Roborn Dried Fruit Company, presided, and delegates from practically every dried fruit producing district attended. In addition to growers, ten packers were represented.

The chairman of the Dried Fruits Board, Mr. G. A. W. Pope, stated that the Board desired to co-operate with growers and could more effectively do so if the growers were united in some form of organisation. He felt sure that the Board would welcome the present movement.

Mr. W. P. Ward (Clare) moved that an association of independent producers and packers be formed, foundation members to consist of about 100 growers, whose names he submitted, and some nine packers, names also tabled, and any other producers whose application for membership should be received before January 3. The motion was seconded by Mr. F. E. Harper and unanimously carried.

The new Association is to be known as the Independent Dried Fruit Producers' and Packers' Association. A provisional Committee was appointed, consisting of Messrs. Geo. Semple, W. P. Ward, J. C. F. Raethel, J. P. Pfeiffer, N. Grace, H. Dalziel, B. H. Jungfer, H. R. Herriot, F. E. Harper and R. Oliver, with W. F. McConnell as general secretary.

LIMITING PRODUCTION.

No Further Plantings Advised.

At a recent meeting of the Victorian Dried Fruits Board, it was decided to recommend to Government that further planting for dried vine fruits be restricted. This decision was made in the belief that until additional markets have been obtained the present production is more than ample. State Governments are to be asked to co-operate in the restriction.

GRADING OF SULTANAS AND LEXIAS.

Packers' Conference.

At a conference of Victorian and Sth. Australian packers recently held at Mildura, an amended schedule of type markings for Sultanans was suggested. The matter was referred to a sub-committee for consideration, and upon their recommendation the schedule was adopted. The system provides for a continuation of the classification of crown grades according to color and general quality, and also for standards affecting large and small fruit, which will enable sellers to cater more effectively for the requirements of buyers in Australia, New Zealand and Canada.

It was felt that some alteration was necessary in the grading of Lexias before next year. Mr. H. R. Jones, general manager of the Co-operated Dried Fruits Sales Pty. Ltd., explained that the improved methods of seeding Lexias had led to increased demand for the seeded fruit in Australia and had also stimulated trade with New Zealand and Canada under the preferential treaty now existing. He estimated that the requirements for next year would be approximately 4,500 tons of Lexias, most of which would be seeded. If the normal crop of 6,000 tons was harvested, this would represent 75 per cent. of the crop, and as the small fruit was the most suitable for seeding, it was necessary to consider an alteration in the method of packing so as to throw the largest and best fruit into the higher grades. Riddles would need to be altered to meet these conditions.

The conference decided to increase the size of the riddles for grading Lexias, and also to alter the door classification. Previous grades have been 5-crown, 4-crown and 3-crown, and it is now proposed to issue receipts for 6-crown (formerly 5-crown), 5-crown (formerly 4-crown), 3-crown (as before), and to adopt grades of 6-crown for the best and largest fruit, 5-crown for the largest brown, 4-crown (the small fruit out of 6 and 5-crown), 3-crown (for large dark brown), 2-crown (for smalls out of 3-crown) and seedless as formerly.

EXPORT QUOTAS FOR DRIED FRUITS.

The Minister for Commerce (Dr. Page) has announced that the export quotas for dried fruits have been fixed as follows:—

Currants 80 per cent., Sultanans 82½ per cent., Lexias 58 per cent., Prunes 33-1/3 per cent., Apricots 55 per cent., Peaches 66-2/3 per cent., Pears 66-2/3 per cent., and Nectarines 25 per cent.

SOLDIER FRUIT GROWERS.

Revaluation of Holdings.

Soldier-settler fruitgrowers representing Sunraysia, Nyah and Woorinen districts conferred at Mildura during December and prepared a formula dealing with the revaluation of holdings at the end of the five-year period in 1937. The Victorian Government was urged to pass legislation appointing a board to carry out the revaluation.

NO APRICOTS FOR NEW ZEALAND.

Decision of A.D.F.A.

The decision of the Dried Tree Fruits Committee of the Australian Dried Fruits Association was recently announced that in view of the strength of the London and South African position, they would not, at present, quote New Zealand for supplies of Apricots.

The Committee also recommended that in future agents should make their own arrangements with regard to shipments of Apricots to New Zealand, instead of the Association quoting prices and allocating orders, as was the procedure last year.

The question of final account sales differentials for Apricots in the 1934 season came before the Committee from agents, and it was decided to recommend the following:—

Three-crown to be the standard grade. Four-crown, £7/10/- per ton over three-crown. Two-crown, £7/5/- under three-crown. One-crown and slabs, £14/15/- under three-crown. "Plain" £22/5/- under three-crown.

Estimates received from packers revealed that the Association would handle approximately 850 tons of Apricots dur-

Fruit **Brokers and Auctioneers** **"FRUCHTHOF"**

Hamburg Germany

Consignments of Apples and Pears Solicited

Ph. Astheimer & Sohn

Cable Address: Agrumi

Gustav Bey

Cable Address: Gusabey

Int. Frucht-Imp Ges.

m. b. H.

Cable Address: Frugalis



J. H. Lutten & Sohn

Cable Address: Luttenson

Aug. Stier

Cable Address: Frutero

Timm & Gerstenkorn

Cable Address: Timmkorn

Firms Listed in Alphabetical Order.

The **"Fruchthof"** (Fruit Exchange) **Hamburg**, Germany
Offices and Salerooms of the Six Leading Fruit Brokers of Hamburg
No Other Brokers and Auctioneers Selling in the **"Fruchthof"**

HAMBURG **The Biggest Port on the** **European Continent**

For Information apply to anyone of the above mentioned six firms

ing 1935 season. The allocation of the pack is as follows:—S.A. 722 tons, Vic. 43 tons, and N.S.W. 85 tons. With the estimate of 300 tons from non-Association packers, the total should be approximately 1,150 tons for the season. It was further recommended that the percentage be made: Commonwealth, 70 per cent., and export 30 per cent.

Mildura.—Urgent representations are being made to the Railways Dept. for a reduction in freight on dried fruits. The Mildura Chamber of Commerce is in communication with other district chambers and packers associations on the subject, it being urged that the present prices for dried fruits will not stand the freight charge. Costs of road and river transport are understood to be lower than rail freight.

PRUNES IN CARTONS.

One reason that some housewives prefer to buy Prunes from a bulk package in the store, rather than in convenient small cartons is that in the carton they generally lose some moisture, which leaves them little, if any, superior to the bulk-packed article, the moisture loss being taken largely from the flavor juices. Tests recently conducted in America showed that at 100 degrees F., with a humidity of 0.5 per cent., the loss in moisture in five days on carton-dried Prunes was 6.65 per cent.

In an effort to overcome this loss of moisture, a new package has been developed. It is the same size as the old carton, but instead of having only paper covering the box, an aluminium foil with an outside cover of paper for printing purposes, is used. Tests with the new wrapping showed a moisture loss of only 0.37 per cent., as against the earlier test of 6.65 per cent. for paper alone. The Prunes in the aluminium wrapping retained the flavor juices, were decidedly more palatable, and could be cooked immediately without soaking.

DRIED FRUITS ABROAD.

Two Merchants Study Conditions.

Two competent men, who recently returned from abroad, spoke eulogistically of Australian dried fruits, during the recent conference of fruit packers in Mildura, reported in the "Sunraysia Daily" of December 12.

Mr. D. C. Winterbottom, general manager of the Mildura Co-operative Fruit Co. Ltd., said that although the London market was highly competitive and offered dried fruits from California, Smyrna, Crete and Greece as well as from Australia in open market, Australian fruit had established a good name. The condition of our fruit in Britain was quite good, and the present box was a suitable container, and carried well.

Storage in all ports was good, and fumigation arrangements were thorough and satisfactory.

Successful sterilisation and fumigation at this end would be a good plan. By holding stocks in Australia, London costs would be reduced, and depressed prices, because of large stocks, eased. Better transport treatment should be given to fruit between Australia and Great Britain.

Mr. T. R. Sloan, manager of the Red Cliffs Co-operative Fruit Packing Co.,

gave a short report of what he had seen in South Africa in the producing areas. One large company received fruit that had to travel 1,200 miles to their sheds. In Canada he had seen Toronto merchants cleaning Australian Sultanias before marketing them, although they opened up in splendid condition. After touring through California, it is Mr. Sloan's conviction that the Australian methods of growing, processing and packing, compared very favorably with those of California.

Fruit Drying

(By C. G. Savage and W. Le Gay Brereton, N.S.W. Department of Agriculture.)

Seasonable Advice

PEACHES, PEARS,
APPLES, PERSIMMONS

Elberta Peaches will be fit for drying at the end of this month or early in February. Later varieties, such as Salwey, or Red Italian Freestone, will not be ready till March. Lady Palmerston ripens at a period between the two previously mentioned. For drying, the firmer yellow-fleshed freestone variety of Peach is required. The above varieties are suitable.

The fruit must be soft ripe, but firm enough to hold its shape when cut. It is cut in two, round the suture, with a sharp knife making a clean cut; the stone is removed and the halves are placed cup upwards in rows and in a single tier on wooden drying trays. The cut fruit on the trays should be kept in the shade and out of draughts whilst waiting to be sulphured; it can be placed meanwhile in the sulphur chamber. It is important that the fruit should not remain too long after cutting before sulphuring, as when the cut surface dries it will not take the finer fumes so readily as when freshly cut. For this reason it is preferable to have several small sulphur chambers rather than one large one. The trays are stacked in the chamber so that the fumes can readily pass between the trays and come in contact with the cut fruit.

When exposed to sulphur fumes under the conditions specified hereunder the fruit should remain in the chamber for from twelve to sixteen hours. It may, however, be found necessary to increase the quantity of sulphur.

Type of Chamber.

The sulphuring chamber should be airtight, and the covering should be some light material, e.g., "malthoid," or similar substance. In the case of movable hoods, every precaution should be taken to prevent ingress of air at the base of the hood, as, for example, by using compacted moist earth round the bottom.

As already indicated, a number of small airtight chambers are recommended in preference to one large one, so

that the fruit shall not be held for any length of time after cutting and before sulphuring. For example, when using 6 feet x 3 feet trays the size of the chamber should be sufficient to accommodate a stack of about fifteen trays, with a clearance of about 6 inches between the trays and the sides and top of the chamber. Trays should be staggered 6 inches when stacking.

A vent hole, 1 inch in diameter, should be provided in the roof of the chamber close to the wall farthest from the sulphur fire when fire is used, or in the centre of the roof where a fire is used at each end of the chamber. A movable slide, preferably of glass, is a desirable feature in order to view the conditions inside the chamber and test the condition of samples of the fruit.

Quantity of Sulphur.

Seven to eight pounds of sulphur per ton of fresh cut fruit should prove sufficient, and it is essential that the sulphur be dry in order to burn readily. The sulphur pit should preferably be located just outside at one, or both, ends of the chamber, with a free entrance into the chamber and a small inlet vent to the sulphur pit.

The sulphur should burn steadily during the time the fruit is in the chamber, and slight fumes should be apparent issuing from the vent hole. Should these fumes cease, inspect the sulphur pan, and either re-light unburnt sulphur or add more sulphur if it is all burnt. If the sulphur is all burnt before the expiration of the sulphuring period it is an indication of excessive draught through the hood. In subsequent sulphurings, reduce the draught by reducing the size of the inlet and exit vents and examine the hood for general leakage.

The weight of fruit in charge should be ascertained by weighing the quantity of pitted fruit on two or three trays and obtaining the average weight per tray, which should be multiplied by the number of trays in the charge. Calcula-

APPLES

London

KEELING & WHITE LTD.,
London Fruit Exchange,
Spitalfields, London, E.1.

Liverpool

ROGERS, WHITE & CO.
LTD.,
10-18 Victoria Street,
Liverpool.

Hull

Northern Fruit Brokers Ltd.,
WHITE & SON HULL
Branch,
Humber Street, Hull.

Manchester

Northern Fruit Brokers Ltd.,
NORTH OF ENGLAND Branch,
Commercial Sale Room,
Deansgate, Manchester.

Newcastle

WHITE & LEATHERLAND,
St. Andrew's Street,
NEWCASTLE.

Cardiff

MORGAN, WHITE & CO.,
Cardiff,
WALES.

Southampton

WHITE & SON LTD.,
6 Oxford Street,

CONSIGN TO THE WHITE SERVICE



WHITE & SON, LTD.,

Fruit Distributors and Marketing Specialists
LONDON FRUIT EXCHANGE,
SPITALFIELDS,
LONDON, E.1.

TELEGRAMS: SPIMARK, LONDON.
TELEPHONE: BISHOPSGATE 1401-6.

For Full Particulars Apply to

SOUTH AUSTRALIA:

GEORGE WILLS & CO. LTD.,
Gilbert House, Gilbert Place,
ADELAIDE.

WEST AUSTRALIA:

GEORGE WILLS & CO. LTD.,
155 St. Georges Terrace,
PERTH.

NEW SOUTH WALES:

BATLOW PACKING HOUSE
& COOL STORES, RURAL CO-
OPERATIVE SOCIETY LTD.,
Box 48, BATLOW.

TASMANIA:

H. JONES & CO. LTD.,
Old Wharf,
HOBART.

VICTORIA:

PARNHAM PTY. LTD.,
Broken Hill Chambers,
31 Queen St., MELBOURNE.

NEW ZEALAND:

S. KIRKPATRICK,
NELSON.

late the amount of sulphur necessary, weigh this, and measure the volume in a container. Thereafter it will be sufficiently accurate to measure the same volume of sulphur each time a similar number of trays are sulphured.

State of Fruit.

It is desirable to sulphur as quickly as possible after cutting, preferably within two hours. Fruit should be stacked from the bottom upwards in the order in which it is cut. Freshly-cut fruit absorbs sulphur dioxide more readily than that cut some time prior to sulphuring, and this arrangement of stacking allows the driest fruit to be in contact with the maximum density of warm sulphur fumes, thus tending to uniform sulphuring results. The cut surface of the fruit when sufficiently sulphured should have a sweated appearance, and the skin should be easily detachable from the fruit.

When sulphuring is completed the fruit is exposed on the trays to the sun, or, if the weather is very hot (over 100 deg. Fahr. in the shade), the trays are stacked in the sun so that the air can pass over the fruit, but it should not be exposed directly to the sun. After a day or two in the stack, or if the weather turns cool, the trays of fruit are spread and finished in the sun. Where Sultana drying racks are vacant, the trays can be placed on the racks and entirely dried in this way, which yields an excellent fully cured but pliable product.

Nectarines.

The later freestone Nectarines, such as Goldmine, are suitable for drying in a similar manner to Peaches.

Pears.

The Williams or Bartlett Pear is the only Pear dried commercially. The fruit should be held in boxes and the ripe fruit sorted for drying every few days. The fruit should be fully "eating ripe" for drying. Very large Pears should be avoided, as they take too long to dry. The fruit should be cut in two and placed cut side upwards on the wooden drying trays, and then sulphured. The Pear does not absorb the sulphur fumes readily, and to obtain a good colored article it is necessary to expose the fruit to the fumes for eighteen to twenty hours, sometimes necessitating recharging the sulphur chamber after about twelve hours, using sulphur at the rate of about 1 lb. to 200 cubic feet of space for each charge.

To test whether the fruit is sufficiently sulphured, lift one from the tray and feel the portion that was resting on the tray. If this portion is spongy, it indicates that the fruit is sufficiently sulphured; if, on the other hand, hard portions are felt under the skin, the fruit

should be replaced in the chamber and sulphured again.

When sulphuring is complete the trays of fruit are exposed to the sun for two or three days, and the trays are then stacked so that the air can pass freely over the fruit, and drying is completed in the stack; this takes about four weeks. The drying can be hastened by completing the process in an evaporator, or, if the weather is very hot, the trays should be stacked at first and, when the weather has turned cooler, exposed to the sun.

Apples.

All mid-season and late Apples may be used for drying. The greatest quantity of Australian dried Apples are produced in Tasmania. There the drying factories are situated in the midst of large areas devoted to Apple growing, the factories buying at a low price Apples rejected for packing for market on account of exterior blemishes, but which are otherwise sound. The factories generally will not accept Apples less than 2½ inches in diameter, as smaller fruit is too costly to handle. It is considered that the factories could not operate on a paying basis unless they could obtain large quantities of Apples at low prices.

The fruit is peeled, cored and sliced into rings by machinery. It is then exposed to sulphur fumes for about thirty minutes, using sulphur at the rate of 1 lb. to 200 cubic feet of space, and dried in an evaporator. In the factory, sulphuring is going on continuously, and there is very little interval between the time the fruit is cut and when it enters the sulphur chamber. In doing small lots there may be too long a wait before sufficient fruit is cut to sulphur. In that case the cut fruit should be placed in a very weak solution of salt and water. The fruit should not be left in the salt solution more than 15 to 20 minutes. This dip will prevent the fruit turning brown before it is sulphured.

In Tasmania kiln evaporators are chiefly used, the fruit being placed direct on slatted floors above a hot-air chamber. The fruit is spread on these floors to a depth of about 6 inches. The kiln evaporator is considered to be the cheaper method of drying Apples. They can, however, be dried in tray evaporators. The prepared fruit is then spread on the trays to a depth of about 2 inches.

A limited quantity of Apples can be dried on trays in the sun, provided the climatic conditions are favorable. If the weather is very hot the trays should be stacked in such a manner that the air can pass freely over the fruit, for if exposed direct to a very hot sun the fruit will dry a dark color.

It seems needless to say that when sun drying such fruits as Peaches, Pears or Apples, the trays of fruit must be

stacked and protected from rain or dews. If the fruit gets wet, the color is greatly impaired.

PERSIMMONS.

Mr. J. M. Arthur, orchardist, Hawkesbury Agricultural College, Richmond, supplies the following notes on the drying of Persimmons.

Dried Persimmons make a very palatable article, with a flavor somewhat resembling the Date. In drying, one disadvantage is that the fruit does not ripen till late in the season, and, unless one has artificial means for drying, such as an evaporator, it becomes a slow process. It is doubtful if the drying of Persimmons could be done commercially, as a sufficient quantity of fruit is not likely to be available; but if the grower has a surplus of fruit, there is no reason why he should not dry some for his own domestic use.

The fruit should be thoroughly ripe, but firm. If unripe, it retains its astringent taste, which makes it rather unpalatable. If time permits and labor is available, it is an advantage to peel the fruit, and use either wooden trays for drying or string the fruit on twine with threaded packing needle. It is necessary to protect the fruit from the weather. It should be hung or spread in an open shed, which will permit the fruit to be exposed to the sun and wind. By this means some weeks are taken for completion of drying, but if the fruit be halved or quartered the process is hastened. After drying, the fruit is cured in piles or boxes for about three weeks, and stirred up occasionally to bring any under-dried fruit in contact with the over-dried, thus evening up the product. It is then ready for consumption, but it is necessary to store it in moth-proof containers.

Investigation in progress by the Division of Fruit Products of the University of California, states Bulletin 416, Agricultural Experiment Station, University of California College of Agriculture, have brought out the following points of importance in relation to drying Persimmons:—

1. The fruit should be dried when firm ripe, as when soft ripe it is mushy to handle and sticks to the trays.
2. Steaming before drying prevents darkening of the natural color during drying.
3. Sulphuring to retain color is not advisable, as it causes the fruit to retain its astringent taste, which otherwise disappears entirely during drying.
4. Peeling causes the fruit to dry more rapidly, and gives a more tender orange-colored product, but because of the labor and the loss in weight in-



IT is being stated that only those who adopt the very best cultural practices and produce the best quality fruit can hope to outlive the present parlous condition of the Citrus industry. One might manage to eke out a living by plodding along in "the good old way," but it is certain that he could not prosper under those conditions. There is one cultural practice, however, without which he will not be able to go very far, and surely that one is the application of nitrogenous fertilisers of some kind or other. By far the greatest majority of all successful Citrus growers throughout the world never hesitate in their choice in this regard. It is always Sulphate of Ammonia, not only because it is the cheapest form procurable, but also because the Citrus trees prefer it, and flourish under its influence.

H17/34

volved it may not be economically advisable.

5. Whole fruits dry very slowly, while sliced fruits stick to the trays. Halving the small fruits and quartering the large ones is believed to be the best procedure. The best product is that which is peeled and then sliced before drying.

6. Rapid drying in a modern dehydrator with a strong blast of air has given the best results. There is some darkening of color, but the orange-brown color is rich and not displeasing to the eye. The drying ratio of unpeeled ripe fruit is about 4 to 1.—N.S.W. Department of Agriculture.

APRICOTS.

With a view to assisting growers who may not be having very good success with Apricot drying, Mr. A. R. Hampton, of the Aurora Packing Co. Ltd., gives the following advice, which we reprint from "Sunraysia Daily" of 15/12/34. As a guide to the sulphuring of Apricots, we will consider six stages: (1) condition of the fruit: this is generally classified as firm, ripe and over-ripe. As far as possible keep these in separate trays. (2) Chamber for fuming: For example, take a sulphur-house, 6 ft. 6 in. long and 3 ft. 6 in. wide and 4 ft. high, of rubberoid, with two vents, each one inch in diameter, in back wall furthest from fire and under-roof. This chamber will hold 15 6 x 3 trays, which will give one sweat of dried fruit. Each tray will hold approximately two and a quarter to three tins of green fruit, according to how the tins are filled. With the above chamber the best results have been obtained by burning 2½ lbs. of sulphur for four hours. This has given a test of 13 to 13½ per cent. sulphur dioxide, the Government regulation limit being 14 per cent. (3) Closed chamber: This is not a success, and the vent holes as mentioned above are recommended. (4) Day Fuming: The best results have been obtained by day fuming, as it means better control, although should it happen that at 5 p.m. a stack of cut fruit is ready it can be placed in the chamber and charged, but it must be removed at 9 p.m. (5) Guide for Effectiveness of Fuming: If skin parts readily from the flesh, the fruit is sulphured sufficiently. (6) Receptacle for Sulphur: Use a wide, shallow dish, such as an old drying pan; this gives a better spread, and, therefore, a better burn. (7) After fuming: Do not expose the trays to a hot sun. Leave in a stack in the open for at least 24 hours, when syrup will go back into the fruit. When the time limit is up, the fruit can be exposed to the sun for two days (normal weather). It must then be stacked again and, in approximately two days, it is ready for boxing.

VICTORIA — Association Meetings.

Items of Interest...

AUSTRALIAN APPLE AND PEAR EXPORT COUNCIL.

A meeting of the Executive Committee of the Australian Apple and Pear Export Council was held at Melbourne on December 17 and 18, 1934. There were present Messrs. J. B. Mills, President, and G. W. Brown (Vic.); B. J. Pearsall, H. A. Court, J. P. Piggott and C. H. Cane (Tas.), A. E. Herring, and J. W. Blick (N.S.W.); J. B. Randell, and H. J. Bishop (S. Aust.); A. V. Wilson (Qld.); and the Secretary, R. E. Boardman. Mr. Brown acted as proxy for W.A. Fruitgrowers' Association, and Mr. Mills proxy for W.A. Shippers.

Mr. Court said that N.Z. had been working at qualitative reduction for several years, and did not at first favor quantitative reduction. A mutual basis of reduction, however, was finally agreed to, due mainly to the diplomacy of Mr. Mills.

Continuing, Mr. Court stated that on behalf of his co-delegates, warm appreciation should be expressed to the New Zealand delegates for their courtesy.

The report of the delegates was adopted and the delegates thanked.

1935 Apple Exports. — State quotas for the 1935 Apple shipping season were decided.

Labels. — It was decided that where labels had been printed with the old designation "Special and Standard," to recommend a rubber stamp boldly showing the new names "Extra Fancy" and "Fancy."

Trade With Germany.—A Committee was appointed to interview Sir H. Gullett, Asst. Minister in charge of Trade Treaties, regarding the inclusion of fruit in any trade agreement with, or credits for Germany.

Interstate Organisation. — Mr. F. Cave attended by request and reported on the progress with the Victoria Mark scheme for standardising and advertising and the application of the system from an all-Australian viewpoint.

Claim Against Shipping Co.—It was decided on a majority vote to obtain, at the request of N.S.W. delegates, legal advice as to the fighting of a claim in Australia for the faulty carriage of Pears to London.

Compensation for Re-working Fruit Trees. — "As no workable scheme had been devised it was decided to refer the matter to the next annual conference.

Research Work. — Mr. Wilson, of the Imperial Chemical Industries, addressed the meeting by invitation, and told of the visit to Australia of Dr. Callan, who was doing important pest control research. It was decided to make arrangements for Dr. Callan to address fruitgrowers meetings.

Proclamation of Regulations. — It was decided to request the Department of Commerce to expedite the gazettal of the new regulations regarding fruit export in 1935.

ORGANISATION, STANDARDISATION, ADVERTISING.

Programme of the "Victoria Mark" Fruit Co.

The inaugural meeting of the Victoria Mark Fruit Co. Ltd., will be held on Friday, January 4, 1935, at the Commercial Travellers' Club, Melbourne, to elect directors, and to transact business for the operation of the company.

The Victoria Mark Fruit Co. Ltd. is an organisation of fruitgrowers, wholesalers and retailers to develop the local market for fruit.

* * * *

At a meeting of the provisional directors in December, it was decided that the Victoria Mark should first apply to new season's Apples and Pears, leaving room for any development later with Oranges, Tomatoes and other produce.

The opportunity is open until January 16, for commercial artists to compete for the £15/15/- prize for the best design of the Victoria Mark.

The Victoria Mark label will be available only for fruit of a defined standard. Apart from this enterprise, particular attention is being paid to the utilisation of lower grade fruit in by-products such as fruit drinks, fruit-powders, cider and vinegar. A new complete cider-making outfit, and also a hand juice press for domestic use are now available. The company will co-operate with the Department of Agriculture and the Health Department in an endeavor to prevent the distribution of inferior fruit.

An educational propaganda campaign is to be drawn up to demonstrate the food and health values of fruit.

Highly satisfactory information was received regarding the success of the National Mark system in England and the Dominion Mark in New Zealand.

SOUTHERN VICTORIAN FRUIT ASSOCIATION.

An executive meeting of the Southern Victorian Fruit Growers' Association was held at Box Hill on December 6, 1934.

There were present Messrs. W. A. Thiele, O. White, F. C. Pyke, G. Fankhauser. Apologies from Messrs. L. Pepperell, F. G. Beet, and R. M. Finlay.

Importation of Apples. The secretary reported having interviewed Mr. Minns re market matters, also Mr. Pyke reported, that in conjunction with the secretary, letters had been forwarded to the Minister for Commerce also Ministers for Customs, dealing with the importation of Apples into Australia from overseas, also kindred associations had been approached and support given.

From Orchardists' and Fruit Cool Stores' Association, stating that as no alteration to the existing rate can be made till 1937 under the Ottawa Agreements, no action will be taken for the present.

Fruit for Germany. From Gippsland F.M.A. drawing attention to the unsatisfactory state of the German market, asking for a prompt declaration from the Government so as to finalise the position.

Victoria Market. From the Victorian Flower Growers' Association, seeking the support of the southern growers in having the lower market modernised so as to accommodate that section of the industry. The secretary reported that he was in touch with Mr. Minns, and was seeking further information.

Action endorsed.

From Farmers' Unity League, Monbulk, stating that the deputation to Mr. Minns on November 17, asking for more accommodation at the Victoria Market for the peak period, was largely attended, the outcome being that growers are to be allowed to stand in Queen and Peel streets, facing the footpaths, and can book stands from market to market. The matter of more shed accommodation was strongly stressed.

Correspondence was read from the Department of Agriculture dealing with residue of 1934 fruit season, also arsenical residue on fruit, also the Canadian Marketing Act in its application to Apples.

Mr. Johnson, of the Germicidal Products Co., gave an interesting talk on fruit sprays, and after several questions had been asked and answered, Mr. John-

son stated that he would be pleased to give a trial at any time if growers would communicate with him.

Department of Lands and Survey. As the time had expired for representation on the Advisory Committee to work in conjunction with the market gardeners and fruiterers, it was resolved that the secretary, Mr. J. W. Aspinall, be nominated.

Research Work. The secretary to interview Mr. Leber, also Mr. Fish (Government Biologist) as to the most suitable time for inspection.

Fruitgrowers' Relief. Growers to participate under the Fruit Act. Completed forms must be in before January 9, 1935. Application forms available at post office in fruitgrowing districts.

DOWNY MILDEW ON VINES.

Cleaned by Dust Sediment.

Vines at Chiltern, Victoria, which were affected with downy mildew, were recently cleaned in a remarkable manner. Early in December there was a heavy duststorm which was followed by rain, leaving a sediment.

The fungus disease, instead of being intensified by the rain was cleaned up.

On burning some leaves and hay with sediment attached, an odor of sulphur was distinctly noticeable. The dust sediment was like iron rust. Farmers and vigneron believe this interesting experience should be followed up scientifically.

DUCKS EAT CHERRIES.

During the recent floods in Victoria, an orchard near Sale, Gippsland, was 15 ft. under water. Ducks swam about and ate the Cherries off the trees.

BEWARE OF BUSH FIRES.

The chairman of the Victorian Forests Commission (Mr. A. V. Galbraith) has issued a warning against bush fires during the approaching hot season. Because of the prolific undergrowth that has followed the abnormal rains in the State, the danger of bush fires will be greater than for many years. The greatest care should be taken by all to prevent bush fires. Spotters will be stationed in districts where the danger is greatest, and the Royal Australian Air Force will co-operate in watching for outbreaks, but residents in country districts and tourists can help materially by exercising extra care this summer.

AUSTRALIAN APPLE EXPORT.

Mr. G. W. Brown at Doncaster (Vic.).

Empire Co-operation Essential.

Mr. G. W. Brown, President of the Victorian Fruit Marketing Association, and delegate from the Australian Apple and Pear Export Council to the Empire Producers' Conference, gave a very interesting address on fruit distribution at a meeting of the Doncaster Fruitgrowers' Association in December.

Mr. Brown explained that about 250,000 cases of Australian fruit could be placed on the London market each week. He pointed out that the problem confronting growers was that of placing the overseas trade on a sound basis without neglecting the home market, which consumes about 60 per cent. of our fruit.

There was a large demand for Empire fruit in Finland, Sweden, Austria and Poland, continued Mr. Brown, and as it was only possible to develop these markets in conjunction with the other Dominions, it was hoped to hold an Empire Conference, including Banana and citrus growers next year. Fruit

Cooper's ARSINETTE

(Superior Arsenate of Lead Powder)

No Finer Arsenate of Lead is Made

PACKED IN 112 LB. CASKS & 28 LB. CASES.

Prices Have Been Again Reduced.



WILLIAM COOPER & NEPHEWS (Aust.) LTD.
4 O'Connell Street, SYDNEY

— F. R. MELLOR, 440 ELIZABETH STREET, MELBOURNE. —

would have to be supplied on a uniform basis all the year round, which would mean uniform cases, counts, grading and labels.

Pear Growers Warned.

In conclusion, Mr. Brown warned Pear growers that they would have to concentrate on quality and the gradual elimination of "plain" grade from ex-

port fruit if they wanted to retain their position, which was the one bright spot in the industry at present.

Warragul (Dec. 10, 1934).—At first it looked like a record crop of all varieties of Apples. But owing to the continual wet weather, they have shed heavily. In

some cases on the low-lying ground trees that seemed to set 8 to 10 cases have all fallen, and will not carry one case to the tree. Spot is very plentiful and after over 10 inches of rain spot will develop again.

I would say: Yates, heavy, but spot showing; Romes, fair; all others, light. —C. P. Nobelius.

CANNED FRUITS

GOULBURN VALLEY CANNERIES.

Kyabram and Ardmona Seek Bonus Payment for Growers.

Members of the Victorian Country Parliamentary Party, including Mr. Bouchier, M.L.A., Mr. Allan (Minister of Agriculture), and representatives of the Kyabram and Ardmona canning companies recently waited on the Premier, Sir Stanley Argyle, requesting permission to make an extra payment to growers as a bonus in view of the success of the past season.

The Government had guaranteed these companies to the extent of £500,000, and had been of the opinion that the profits should be used to make their position more secure.

The Premier promised to place the matter before the Cabinet.

THE ENGLISH CONSUMER.

Favors Australian Fruit.

A study of the Imperial Economic Committee's "Canned and Dried Fruits Notes" reveals that although the canning industry has increased substantially in recent years in England, the United Kingdom has still to import the great bulk of her requirements. The packing of English fruit slowed down last year, but that of canned vegetables increased.

Great Britain imported 150,000 tons of canned fruits last year, valued at approximately five million pounds, which was slightly lower than the previous year.

A survey of quantities and varieties of fruit used in Britain includes the information that Pineapples constitute 25 per cent. of canned fruits imported, and of this, Empire countries supply 93 per cent.

The report shows that the United States supplies the largest quantity of "other fruits," but that Empire supplies increased over 30 per cent. during the year under review. Australia supplied

one-fifth of all Peaches and Apricots received, whilst Pear shipments also increased. And all three varieties declined from U.S.A. Imports of canned Pineapples declined, largely because of the reduction of imports from the Malay States, the principal suppliers.

SHEPPARTON CANNERY.

Extra Payment of £1 per ton.

The Shepparton cannery recently made an extra payment to growers on canning Apricots, Peaches and Pears of £1 per ton for the fruit supplied last season.

For last year's crop growers have now received £10 a ton for Pears and Peaches and £11 for Apricots, while in the price fixed by the fruit industry sugar concession committee was £7 for Pears and Peaches and £8 for Apricots. The extra payment of £17,000 will have a marked effect on the general prosperity of the district.

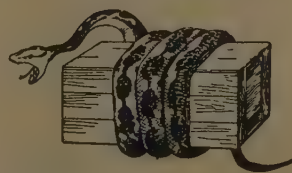
In our September issue we reported that the Shepparton Cannery planned the expenditure of about £26,000 upon extensions and improvements. These have now been completed, and additional machinery installed ready for the coming season, when an increased output is anticipated. The main changes noted are new boiler equipment, transfer of part of the power load to Yallourn current, additions to the lye machine, that will bring the treating capacity up to 20 tons per hour, extra washing machinery to cope with an increased volume, and additional storage space for another 3,500 cases, bringing the total storage capacity of the cannery up to 130,000 cases.

The usual repairs and renewals have been carefully undertaken, and facilities in each department adjusted to provide for increased production. New stainless steel canning basins have replaced the enamel basins, and will give an increased capacity of 20 per cent., and an extra cutting machine has been added. A 70 h.p. motor and a 45-ton compressor

FRUIT PULP FOR JAPAN.

Returning to Australia after having visited Japan, East Indies and the Malay Peninsula, Mr. M. J. Gleeson, in an interview, reported in "The Area News," stated that owing to the low wages of the majority of Japanese workers, they could not possibly buy Australian canned fruits or jams in the present form in which they are packed, but that if Australian manufacturers would pulp their surplus fruit and land it in Japan cheaply enough to enable local merchants, with cheap sugar and cheap labor, to convert it into jam for the masses. It might help to solve Australia's surplus fruit problem. In his opinion, this would not affect the present sale of Australian jams, as the class that would buy such pulp-jam cannot afford to even consider buying a tin of Australian jam. Moreover, such a

PYTHON



WIRE STRAPPING PTY. LIMITED.

PYTHON WIRE STRAPPING MACHINES are leased on an equitable basis with no obligation to purchase your wire from the owners of the machines.

It is the fastest, most economical, and efficient wire strapping machine on the market, and must save every user money.

Python Wire Strapping Pty. Ltd.

21 HOWARD ST., NORTH MELBOURNE
42-44 MEAGHER ST., CHIPPENDALE, SYDNEY

process would lift a tremendous amount of surplus fruits. This suggestion was also favored by the Dutch merchants with whom he conferred upon prospects for markets.

Another suggestion made by Mr. Gleeson was that Australian canned fruits should bear labels in both English and Japanese languages (or such other country to which the fruit was shipped). This is not being done by any exporting country, but, in his opinion, it would influence the sales of such products.

In the past, Australian products had not made a good name, said Mr. Gleeson, because of poor methods of grading and packing, and more seriously still, the fact that supplies did not conform with the samples submitted. This has been largely overcome, and reception is improving fast.

In conclusion, he considered that three Trade Commissioners should be appointed for the control and development of Australian trade in the East. They should be men of wide commercial experience, and should be stationed in Japan, Singapore and India respectively. They should be vested with considerable authority, and should be paid salaries sufficient to secure the best men available for this responsible and increasingly important position. One commissioner cannot possibly cover the whole of the Eastern markets in an adequate manner. The question was asked in the House of Representatives recently, if the Government intended to appoint Trade Commissioners in the East. In reply, Mr. F. H. Stewart, Minister for Commerce, stated that such commissioners would shortly be appointed. At present, he was considering the choice of suitable men.

NEW FOOD CANNERY.

A RECENT REPORT from U.S.A. states that experts representing the famous firm of H. J. Heinz, packers of 57 varieties of foodstuffs under the well-known Cucumber Brand, and originators of the advertisement, "1 of the 57," will shortly sail for Australia, where they intend to establish a factory in Melbourne. Food and soil experts are to be included in the party accompanying Mr. Heinz, and it is predicted that the company will later engage in the processing of fruit, vegetables, preserves, sauces and nut foods. The new factory is part of a programme of international expansion recently decided upon.

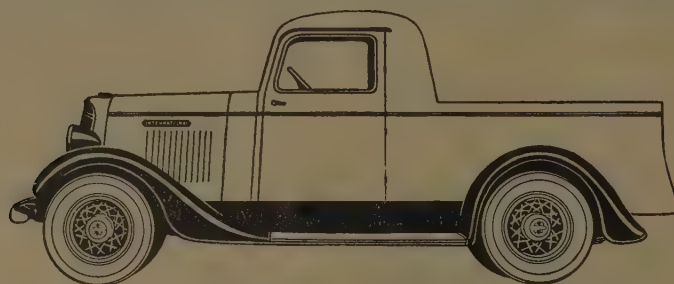
CANS FOR EVERY USE.

Over a million people stood in line, from twenty minutes to an hour at a time, for the opportunity to "make a can" at the American Can company's exhibit at the 1934 Century of Progress Fair, recently closed in Chicago. Besides the can makers, it is stated that more than three million people saw the exhibit during the five months of the fair.

The can actually made by the million amateur operators was in the form of a tin savings bank, similar to an ordinary one-pound jam tin, and wouldn't be worth much were it not for the fact that the receiver actually sealed the tin by operating a lever on the very elaborate machine forming the "draw" of the exhibit.

But beyond all this was a definite advertising objective, of which the main effect was to remind the crowds of on-lookers that the tin can is the ideal food container, light but strong, cheap and easily filled, protects its contents even under rough handling, remains indefinitely airtight, can be quickly heated or cooled, does not affect the wholesomeness of the contents, spoils no food, and is the only perfect universal, simple and popular container.

Despite the American housewives' partiality to canned foods, this single exhibit of the multitudinous uses to which the tin can may be put with safety and ease, must go far to making all those who visited the great fair, even more potential purchasers of canned foods in the future.



The Very Latest Half-Ton Truck— International 6-Cylinder Model C-1

International's new half-ton chassis offers you high quality at low cost and will render exceptional service as a light-delivery unit in any kind of business. Thirty-five years of automotive experience have paved the way for this efficient and beautiful truck. Try International Model C-1 on your own job. Test it for utility, style, speed, stamina, and economy. It represents outstanding value in the light-delivery field. Arrange with your local agent for a demonstration.

INTERNATIONAL MODEL C-1 BRIEF SPECIFICATIONS.

Six-cylinder engine: bore, 3-5/16 in.; stroke, 4-1/8 in.; maximum brake h.p., 78.5. Wheelbase: 113 inches. Tyres: 5.50-18 balloon. Standard equipment includes spare wire wheel, tyre and tube, mud-guard well tyre carrier, front and rear mudguards, full-length running boards, 4 Delco-Lovejoy shock absorbers. Aeroplane-type instrument panel.

Other Internationals . . . 1½ to 5 tons.

INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY
OF AUSTRALIA PTY. LTD.

543-555 Bourke Street, Melbourne, C1.

Telephone: Central 8540 (5 lines).

WOOD WOOL

Finest Grade for Export Fruit.

STRAWBERRY BOXES,
and Fruit Containers.

Prices and Particulars on Application to

AUSTRALIAN BERRY BASKETS
CO.

175 Kent Street, Richmond, Vic.
Tel. J1263.

New South Wales News and Notes

January in the Orchard.

(By C. G. Savage and W. le Gay Brereton, N.S.W. Department of Agriculture.)

Cultivation.

IN MANY LOCALITIES the frequent showery weather during the spring and early summer has repeatedly prevented cultivation from being carried out; consequently weed growth is too far advanced to be dealt with by ordinary orchard cultivators, and the plough will be required. It is most important that such growth should be suppressed, for if it is allowed to remain and a dry spell should follow, the trees will suffer from lack of moisture. As a matter of fact, early in the new year is a very suitable time to plough, apart from weed control, as often the land has become very compacted by the traffic due to the intensive spraying that is imperative in many deciduous orchards during spring and early summer. In any case, the plough is the best cultivator, leaving a better and more lasting form of soil mulch.

Budding.

Mature buds can now be obtained from the current season's growth of deciduous fruit trees, and if the nursery stock or the young shoots of established trees that have been cut back at the end of the winter in preparation for budding are large enough and provided the sap of the stocks is running freely, permitting the bark to lift clean, the present is an excellent time to carry out budding operations.

It is a wise plan to examine established trees that have been previously grafted with another variety, for where grafts have failed, buds of the desired variety can be inserted into suitable shoots springing from the original tree. This applies also to trees that have been grafted by any of the multi-graft methods.

Summer Training.

Young trees, or established trees that have been budded or grafted, require some attention during the growing period. Such attention should commence in the spring, when the new shoots are only a few inches long, and be continued at fairly frequent intervals to well into the new year. Often during January and February young deciduous fruit trees will put on their greatest growth. Very strong shoots may start in undesirable positions, and if there is any likelihood of them sapping the growth of shoots

that are required for building the framework of the trees they should be cut right out. If, however, they are not interfering with the desired main shoots, a slight checking will be sufficient.

There is more than one reason for leaving superfluous shoots if they are not interfering with the desired or necessary main shoots:—

- (1) It will be found that if the superfluous shoots are all removed the remaining shoots are far more liable to be broken out by heavy winds.
- (2) The foliage of a tree is comparable to the lungs and stomach in an animal, and if the foliage is reduced there will be a proportionately less root development.
- (3) In upright growing trees superfluous strong shoots in the centre of the tree during the growing period force the growth of the desired main shoots outwards, and a more spreading framework is obtained.

Examination of young trees at fairly frequent intervals from soon after they start into growth and throughout the growing period is important, however, as superfluous shoots that at one examination seem harmless, and are left or even checked, may at a later period burst into growth and sap a desired main shoot. Often it occurs that some of the desired main shoots will grow faster than the others, and, if the strong ones are not checked, a very lopsided framework will result. Again, if all the main shoots are making very rapid growth there is danger of their being broken out by strong winds; it is then necessary to choose the lesser of the two evils and check their growth.

Care should be taken when checking the growth of the desired main shoots for any reason, that only the soft growth at their terminals is removed. If they are cut at a lower point where they are harder and woody, there is a danger of their failing to start again and the shoot will remain stunted. This is especially likely to occur if a dry spell follows and the young trees cannot be watered.

In carrying out the above-mentioned work, the operator should always keep in mind that the growth should be interfered with as little as possible.

COMING SHOWS.

In N.S.W.

Castle Hill—February 8, 9.
Wyong—February 15, 16.
Parramatta—February 15, 16.
Penrith—March 1, 2.
Uralla—March 1, 2.
Yass—March 5, 6.
Inverell—March 5, 7.
Adelong—March 12, 13.
Moss Vale—March 7-9.
Blayney—March 15, 16.
Gulgong—March 15, 16.
Goulburn—March 28-30.
Hawkesbury—April 4-6.
Warringah—April 12, 13.
Sydney Royal—April 15-24.
Grafton—May 9-11.

APRICOTS ON THE M.I.A.

Leeton.—The local cannery agreed to accept the whole of the Leeton Apricot crop for canning, in addition to a minimum of 500 tons from Griffith.

Crop Prospects.

Tallong (31/12/34).—Re fruit prospects. In Tallong district the crops of fruit generally are very good, especially in Granny Smith, Romes, London Pippin, Delicious and Yates. The Pears are not quite so good. The varieties are chiefly Williams, Packhams, Boscs and Josephines. Crops generally are much heavier than last year.

The Tallong orchards have almost escaped the hail so far, but a few miles away a good many orchards have been very much damaged with hail.—Davenport Bros.

*Growers should get into touch with
Empire Produce Exports.*

PITTS & LEHMAN
129 PITT STREET, SYDNEY

And take advantage of their wide connection with importing firms in England, Canada and Europe.

Representatives of—Ridley & Houlding Ltd., London; Mutual Brokers, Montreal; R. & W. Davidson Ltd., London and Glasgow; Roberts Brining & Co. Ltd., London and Glasgow; Thos. Allan & Co. Ltd., Glasgow, and W. Gosley, Hull.

??? ??? ???
QUERIES QUESTIONS DOUBTS

As to the Best Outlet for Your Fruit
can be dispelled by consigning it to

T. J. POUPART LTD.

COVENT GARDEN
LONDON, W.C.2.

SOUTHAMPTON BRISTOL LIVERPOOL HULL

Account Sales rendered are the best test
of Salesmanship. On that test we have
emerged from obscurity in 1895 to world-
wide repute in 1935

Consignments of Oranges Solicited

Separate Department for Dried and Canned Produce and Pulp.

— AT —

SPITALFIELDS MARKET
London, E.1.

Tasmanian Growers ship through Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
Victorian Growers ship through Fred J. Andrew, 153 William Street. Melbourne.

South Australia

RIVER MURRAY NOTES.

AT last we have had some seasonal weather, days when the thermometer bubbles over the century mark, accompanied by drying winds. This is our "doctor," and while these conditions prevail we have no fear of further damage from black spot, nor is there the fear of downy mildew, making its appearance. As the vagaries of this season have been very marked, it would be very unwise to depend entirely on our "doctor" to cure these two fungoid diseases. A much safer plan is to give at least a "bunch" spray of Bordeaux mixture, which is a check to black spot and carries immunity from serious loss from downy mildew. At the present time the crop prospects are for a normal production of all vine fruits equal to that of last year, with the exception of Gordos, which are distinctly light. Apricots are heavy. Pears, although showing light in many instances, promise to be about normal.

At bud burst, an extraordinary good crop promised, but frosts and black spot took their toll, and although individual losses have been heavy, in the main, these losses, when spread over the productive area, would not amount to any thing serious.

Mr. S. L. Tisdall, B.Ag.Sc., gave an address at the Renmark Agricultural Bureau on November 27 on the "Free Water Problem" on the Murray River Settlements.

Mr. Tisdall said that after all these years of irrigation, little is known of what happens to the water after it leaves the surface, and it is to gain specialised data in this aspect of irrigation that the Council for Scientific and Industrial Research has undertaken this work. A years' operations was covered by the speaker, and although a great deal of useful information had been collected, the work is as yet in its infancy. The readings of water tables taken periodically revealed the fact that the movement of subterranean water followed no logical sequence, owing to bands of clay, pockets of marl and other factors, which necessitated the use of observation pipes. These pipes consisted of 2 in. galvanised down-piping, 6 ft. long, soldered at one end to prevent the ingress of mud from the bottom, with $\frac{3}{4}$ in. holes punched spirally up the length of pipe; they are placed in position after having been bored with a soil auger to the required depth. The pipes are allow-

ed to project above ground 1 ft., and are covered with a lid, this keeps out all unnecessary dirt. Weekly readings of these test holes gives a fairly accurate account of the movement of sub-soil water, and will indicate where trouble is likely to occur before it occurs, so that preventive measures can be taken, such as shortening the period of irrigation or draining away the surplus water to a drainage well.

Mr. Tisdall's address was much appreciated by growers who were alive to the possibilities of individual observation. It sometimes happens that water will be built up from a neighboring block through a grower watering heavier than is necessary. When this occurs, it will be found that a porous layer of sand or limestone carries the water into this stratum and deposits itself in an adjoining block. By the use of a soil auger and observation pipes, as described above, a grower can find out whether his own time of irrigation should be shortened or his neighbour's. Bear this in mind, and in very rare instances has it been found necessary to water longer than six hours. In six hours water will have soaked sufficiently to the depth of feeding roots. To irrigate beyond this time is to build up trouble for the future.

In the "California Cultivator" of October 13, an article appeared by Mr. H. Kimball, warning irrigators not to over-irrigate. The observations embodied in this paper coincide entirely with those expounded by Mr. Tisdall.

The Californian advice is rather to under-irrigate than over-irrigate. The effects of under-irrigation is a temporary check to the vine or tree, and possible reduction of a year's crop. To over-irrigate means that the rooting system will be affected and the loss will extend over several years if it does not become a permanent loss, by land going out of cultivation.

Sulphur as a Soil Corrective.

Growers on the River Murray are interested in the action of sulphur as a soil corrective, and have followed the experiments at the Waite Institute at Adelaide (who are working under the C.S.I.R.) with a great deal of interest.

It is only recently that the bacteria has been isolated which converts the sulphur into sulphuric acid, thereby increasing its acidity and altering the mechanical condition of the soil.

Mr. C. W. Till, of Barmera, treated a patch of half an acre of intractable clay

soil with sulphur, with a dressing of half a ton (equal to one ton per acre), when he ploughed it last winter it cleared itself off the mouldboard like sand, and Mr. Till is so pleased with the result that he intends extending the application to other parts of his holding.

Professor Prescott, who is in charge of the soil division of the C.S.I.R., has laid down an experimental plot on the block of Mr. Sam McIntosh, at Berri, with a dressing of 10 cwt. per acre and one ton per acre. The land is a fairly heavy clay, which cracks after an irrigation. On the 10 cwt. portion there were no cracks after irrigation, and on the one-ton application the land could be kicked up like powder. Whether the sulphur application will materially benefit the vines it is still too early to say, but if it only helps to break up the soil, so as to create a better soil mulch, this would be of a great benefit to stiff soils. The use of sulphur has been a general practice in California for many years on alkaline soils, and in the use of sul-

Fruit TreeS

Fruit TreeS

Fruit TreeS

Best Obtainable—Catalogue Free

Quality first and all the time.

Book Now for Delivery June-July.

Orders reserved.

**John Brunning
and Sons**

Somerville Nurseries,

**Somerville — Victoria
Australia.**

Orchards & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case
Capacity.

Established 1866.

phur as a soil fertiliser or corrective, they seem to be a bit ahead of us. It has been found by various growers that sulphur has a wonderful tonic effect on Citrus trees. Many practical growers have rejuvenated their old and apparently worn out Citrus groves by applications of sulphur.

These results were so outstanding that the matter was taken up by Mr. Harold Merchant, professor of chemistry at Chaffey Junior College, Ontario, U.S.A. Professor Merchant recommended a dressing of 1,000 lb. per acre to Citrus groves, where the soil showed a pH of over 8. The term pH is one used by scientists to express the acidity or alkalinity of various materials, but is used chiefly in connection with soils.

Subsequent tests showed that the pH had been reduced down to 6.63 and 6.35, as the latter test seemed a little too low, an application of lime was being applied to bring it nearer normal. A pH of 7 is considered to be neutral, and it has been found that Citrus do well on this figure or anything ranging from 6.8 to 7.2.

In some instances the manurial programme of the orchard had not been changed, and, whereas that portion of the orchard not having received a dressing of sulphur the trees looked sick and failed to bear normal yearly crops, the sulphur treated part of the orchard, however, put on fresh growth, dark green leaves, and showed a good crop. Following this work, a good deal of investigation took place for pH determination of many Citrus orchards, and their cropping ability, and in a chart published in the "Californian Cultivator," of October 13, it has been shown that Citrus trees do not thrive on an alkaline soil, but where soils show a pH of something around 7 there is a decided increase in cropping ability of the trees.

There are many old Citrus groves in Australia which may have a chance of rejuvenation if it can be shown that the alkalinity of the soil is too high, and this can be remedied by an application of sulphur.—"Nemo."

The Torrens Valley Citrus Co-operative Society Ltd.

Standardised Fruit for Export and Local Markets.

(By F. A. Wicks, Secretary, Lower North East Road, Payneham, S. Australia.)

THE FORMATION of the Torrens Valley Citrus Co-operative Society Ltd., whose registered office is situated at New Market, Grenfell-street, Adelaide, is another instance of the growing feeling amongst fruitgrowers, and in fact of all engaged in primary production, of the need for co-operation in order to protect the common interest.

This Society is really an offshoot of the South Australian Fruitgrowers' and Market Gardeners' Association, all its shareholders being members of the parent Association. For many years there has been a Citrus Branch of the Fruitgrowers' Association under the capable secretaryship of Mr. W. J. Kimber, who needs no introduction to the fruitgrowers of South Australia, his name being almost a household word amongst those whose business brings them into the Adelaide markets. His work in building up that organisation has been a triumph over many difficulties and a real labor of love, his heart being in the job for the betterment of the lot of the fruit-grower in general.

However, it was early realised by some of the larger growers of citrus of Torrens Valley, that, though the Association was doing a splendid work, it could not be expected to take over the control of its members' fruit for export, especially in view of the necessity for a

Central Packing House,

in order to put up a uniform pack which would not be a disgrace to South Australia. Our Society does not claim to have succeeded in doing the job perfectly, but is always ready to learn and profit by the experience of others.

During August, 1933, a conference was

held with members of the Executive of Murray Citrus Growers' Association, with a view to formulating a common policy in case South Australia should be given entry for its citrus fruits to New Zealand, and after many discussions and meetings, it was resolved to form a Co-operative Packing House in order to be ready to ship when the embargo should be lifted by the New Zealand Government. Just here I should like to place on record this Society's appreciation of the assistance and unfailing courtesy of Murray Citrus Association, especially mentioning their very capable Secretary, Mr. N. H. Underwood. Although we are not affiliated with them or bound in any way to them, we, as a packing house have received the same treatment in regard to export quotas, and in all matters pertaining to export, as their own districts, and as the whole of our export has been done through their organisation, it speaks volumes for the wholehearted co-operation which has existed during the past season, and is certainly a good sign that growers are realising that all are bound by ties of common interest.

It was early realised by the Committee which had been appointed by a growers' meeting, that in order to function to the best possible advantage, registration would be a vital necessity and consequently the Committee received instructions from the growers to proceed with the formulation of a set of rules under legal advice and submit them to a meeting for confirmation.

This was done and on July 23, 1934, registration was effected. This desirable result was largely the work of our energetic chairman, Mr. N. T. Hobbs, in conjunction with the other members of the committee of management, Messrs. W. H. Ind, L. J. Wicks, A. W. G. Pitt, F. P. Short, L. G. Pethick and E. R. J. Naismith, the lastnamed gentleman being later appointed to the managership of the packing house, resigning his position on the committee of management.

A sizing machine of the latest type was purchased, and has proved to be a sound investment as its work during the past season has been efficiently performed with a minimum of delay or damage to the fruit.

One cannot help but place on record our thanks to the South Australian Fruitgrowers' Co-operative Society Ltd., whose fruit processing factory is situated at St. Peters, and whose manager, Mr. Tonkin, has at all times helped us in every way possible. Portion of their premises

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

Apples, Peaches, Pears, Plums, Apricots,
Citrus, etc., packed and despatched to
all parts of the World.

Overseas Orders receive careful and prompt attention.

Catalogue printed.

Code A.B.C., 5th ed.

C. A. Nobelius & Sons Pty. Ltd.

Gembrook Nurseries, EMERALD, VICTORIA

'Phone, Ringwood 171.

have been used as a packing house, and labor for handling and vehicles for cartage of packed fruit have been made available at all times at a moment's notice.

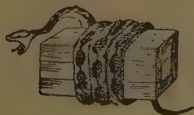
The present activities of the Society are confined to the handling of members' fruit for export, sweated fruit being taken from the grower's lorry, when his responsibility ceases, the Society grading, sizing, packing and placing it on rail or boat for him. Up to the present about 40,000 bushels of fruit have been processed by the packing house.

However, our rules are sufficiently broad to give us power to take up any other activity which will benefit the grower and the future policy of the Society is in the hands of a capable committee who may be relied upon to take the necessary steps to benefit its members in any way possible. Large undertakings sometimes have small beginnings, and perhaps in the future this organisation may grow into one which will be looked upon by the growers of Torrens Valley with pride, as an example of what can be accomplished by co-operative effort.

BERRI IRRIGATION PLANT EXTENDED.

The installation of two new pumps at Berri will supply greater lifting facilities for the huge volume of water required for irrigating purposes. Not only will the new plant obviate the need for the old No. 1 plant which had to make an intermediate lift, but, by being housed in one big station, it will prove an economy. The pumps were made by the Clyde Engineering Co. in Sydney, and have a combined capacity of 600,000 gallons per hour. In addition, a 21-inch steel cement-lined pipe line, some 1,800 feet long, has been put down to supplement the supply to the 90-ft. channel.

USE PYTHON MACHINES FOR



SERVICE and EFFICIENCY

Python Wire Strapping Pty. Ltd. supplies wire in small coils ranging from 2,000 to 4,000 **guaranteed measured feet**.

Price:—16-gauge High Tensile Wire, at 3/6 per 1,000 feet.
Special Wire for light packing at 3/3 per 1,000 feet.

Every Coil is Tested.

The Most Up-to-date Container for these Coils, which Prevents Tangles.

Python Wire Strapping Pty. Ltd.

21 HOWARD ST., NORTH MELBOURNE
42-44 MEAGHER ST., CHIPPENDALE, SYDNEY

When irrigation is in full swing, the Berri plant can deliver no fewer than 2½ million gallons per hour, and to produce the required power 80 tons of fire-wood is required every day.

Basket Range (22/12/34).—Cherries have been very light this year, about 33 per cent. of last year's crop. Apples are fairly light, early culinary varieties two-thirds last year. Jon., half crop; Romes, half crop; Statesmen and Demo., two-thirds last year; Rokewoods, very light, 10 per cent. of 1933-34.

Plums are light, about one-third of a crop. Pears are medium; Williams and B. Bosc as good as last year, a nice crop; Howell and Packhams, half crop. We, like many other districts, have suffered from hail this year, and black spot is troublesome.—B. A. Cramond.

Export to Continent.

The S. Australian Agent-General in London (Mr. C. F. McCann) reported in December that an order for 10,000 cases of South Australian Apples, to be delivered direct to Antwerp during March and April, had been secured.

An order for 30,000 cases was recently secured in Sweden, and it is expected that new orders will balance the loss of trade with Germany.

APPLE AND PEAR EXPORT.

The general manager of the South Australian Government Produce Department (Mr. G. A. W. Pope) has received a cable from the Trade Commissioner, stating that very large supplies of the English crop of culinary varieties of Apples have been placed in cold storage, as the present ruling prices for these are from 2/6 to 3/- a bushel.

It is expected that these cold store Apples will be marketed during March in competition with the early arrivals from Australia.

There is also a heavy crop of American Newtown Pippins, part of which will be cold stored and held for marketing in competition with Australia.

Mr. Pope stated that Mr. McCann was endeavouring to obtain orders for South Australian Apples, and already quantities had been sold at the following range of prices:—

Cleos. and Dunns (C.i.f. and e.), 8/9 to 9/-; Jonathans, 7/9 to 8/-; Romes, 7/- to 7/6; Statesmen, 7/6; Stone Pippins, 7/6; Rokewoods, 8/-; Granny Smiths, 9/6.

The export crop this year promises to be about 40 per cent. Romes, and all exporters were finding the greatest difficulty in finding buyers for this variety at payable prices.

The Rome has lost favor in England, especially because, owing to seasonal conditions and the quantities shipped last season, were practically devoid of the usual color associated with this Apple.

On the other hand, there is a special demand for Granny Smiths at good prices, and Mr. McCann is anxious to obtain 2,000 cases for a special order.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

At the monthly meeting of the Executive of the S.A.F.M.A. on November 30, a letter was received from the Minister for Agriculture, advising the passing of a Fruit and Vegetable Grading Bill, giving the Government power to draw up standards in relation to the relative freedom of fruit and vegetables from insect, fungus or bacterial diseases, or blemishes caused by such.

February Apple Shipments.—The President (Mr. H. J. Bishop) advised that the original forecast made to the O.S.R.A. was for 25,000 cases of Apples for February. After consideration, the Freight Committee had recently made a general recommendation that no Apples should be shipped in February, but it was found that some shippers had commitments for February. After discus-

MONEY available for ORCHARDISTS, BERRY FRUIT GROWERS, etc. Temporary PRIVATE LOANS, Lowest Interest. Repayments to suit, any reasonable security. Confidential. No obligation. Personal application only.



SPECIALTY INVESTMENTS. 89 Collins St. Melbourne, C.I. Cent. 2643

sion it was resolved to reduce the February forecast to 10,000 cases, and to recommend to the Freight Committee that shipment be made on the last possible steamer in February, for preference on the 28th.

May Shipments of Apples.—It was resolved to advise the O.S.R.A. that the forecast for May shipment of Apples would be 30,000 to 50,000 cases.

Apple Export Forecast.—At a rough estimate it was considered that there should be 300,000 cases for export.

Pears.—The President advised that the Freight Committee had made application to the O.S.R.A. for a chamber for 6,000 to 7,000 cases of Pears between January 28 and February 5. Several grower members considered that the date was too early and it was resolved to recommend to the Freight Committee that the

date be altered to February 5 to 8. It was also resolved to recommend to the Freight Committee that arrangements should be made to ensure a satisfactory method of pre-cooling Pears. It was suggested that consideration be given to the advisability of requiring a core temperature of 45 to 50 degrees.

Research Sub-Committee. — Mr. H. N. Wicks reported that at the meeting of the Research Sub-Committee reports were received in regard to codlin moth trapping experiments.

A letter had been received from Dr. J. W. Davidson, advising that the C.S.I.R. was investigating the matter of non-arsenical sprays. In connection with manurial experiments it had been suggested that the tests being carried out by members with sulphate of ammonia should be continued for a period of ten years.

The South Australian Fruitgrowers & Market Gardeners' Association had agreed to join this Association and contribute half the cost of making a small presentation to Mr. G. Quinn on his retirement. The suggested gift was a case of pipes, and after discussion, this was approved, and Messrs. R. B. Pritchard and D. W. Hannaford were appointed a sub-committee to select the pipes. It was resolved the presentation should be made at the field day to be held at Clare on the first Saturday in January.

"REGA" SPRAYERS.

Thirty years ago a man named Mole conceived the idea of saving time and money on orchards and other rural properties by inventing portable spraying outfits. These sprays have been improved upon from time to time, new features being added, until to-day they are as near perfection as possible. For many years the complete article was imported into the Commonwealth, but for the past eight years they have been manufactured in New South Wales under the name of "Rega."

"Rega" atomisers, bucket pumps, knapsacks, barrel sprayers, and dusters comprise only a portion of the orchard and veterinary necessities made by the "Rega" company.

Of particular interest to fruitgrowers are the "Rega" knapsack duster and the knapsack liquid sprayer. The former is a force-fed machine, with a powerful drive, rendering it easy for the operator to deal with high trees, or to cover wide areas on ground work. A special sifting device ensures that no lumps pass through, with the result that a fine dust is sprayed over the trees.

The "Rega" knapsack sprayer surplus liquid above the plunger is returned to the container by the following ingenious device:—

In the pump cylinder a liquid return way is made into the container through

the top connecting bracket. Screwed therein is the liquid return shoulder piece, No. 44, into which is screwed the liquid return tube and valve, No. 48. This prevents liquid waste and overcomes the disagreeable wetting of the operator's clothing.

The parallel motion lever imparts extraordinary power to the pump with the minimum of effort, which necessitates the fitting of high compression valves and a solid-drawn brass tube air chamber. Spraying mixtures are applied in cloud form by means of the enormous pressure obtained in the combination.

"Rega" products are obtainable at all suitable stores throughout the Commonwealth, and readers should ask their local supplier for a complete catalogue.

RASPBERRIES.

Most common varieties of hardy red Raspberries are self-fruitful, and will produce fruit without having outside pollen brought in, is a statement of Max B. Hardy, of the Washington State Agricultural College. He claims that it is not necessary to have other varieties present in the field to get good fruiting, as is the case of some fruits, such as Apples.

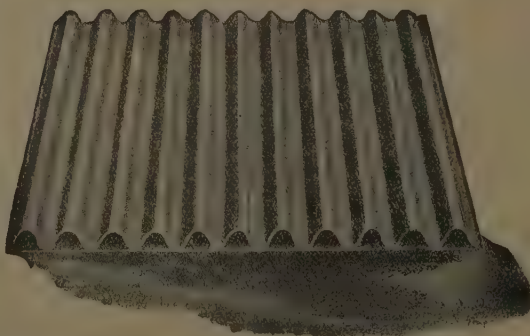
Anti-Bruze Corrugated Fruit Pad

MADE IN TASMANIA

*To obtain highest prices your fruit must arrive
at its destination in perfect condition.*

FULL HEIGHT CORRUGATIONS

CORRECT RESILIENCY



After much research a Corrugated Pad has been produced which is ideal in all respects; namely:— Resilience, Shape, Spacing and Height.

This new ANTI-BRUZE Fruit Pad affords your fruit full protection and enhances its value to the prospective purchaser.

—○—
OBTAINABLE FROM LEADING
DISTRIBUTORS THROUGHOUT
TASMANIA.

Fruit Breeding and Pollination Investigations

USEFUL ACTIVITIES BY N.S.W. DEPT. OF AGRICULTURE.

Apples.

APPLE BREEDING WORK and pollination investigations have been continued during the past season at Bathurst and Glen Innes Experiment Farms, and some additional crosses which it was not possible to make at these farms were effected at Hawkesbury Agricultural College. A few of the seedlings planted out at Bathurst and Glen Innes have now begun to fruit. It was noted by Mr. F. T. Bowman, Fruit Research Officer, who is co-operating in these fruit breeding investigations, that fruit of commercial size was produced by all seedlings except in the case of Oldenburg seedlings which showed a reversion to Crab Apple ancestry. Two late ripening solid red sorts hold promise, and will be further observed next season.

Continuing the observations on the relative vigor of the seedling progenies derived from crosses on Granny Smith, Mr. Bowman has observed that Granny Smith-Northern Spy seedlings were vigorous, although some were badly affected with mildew. To the list of varieties previously indicated as giving seedlings of poor vigor when mated with Granny Smith, Mr. Bowman now adds Western Beauty, Bowman's Red Winter Reinette, Wabash Red Winter and Tasma's Pride.

The crosses made during the year at Bathurst and Glen Innes have been chiefly with Granny Smith, Tasma, Delicious, Jonathan, Cleopatra and Yates, and the opportunity was also taken to determine the value of the pollen parents as orchard pollenisers of these varieties.

Artificial self-pollination of Granny Smith at Bathurst Farm has shown that the variety cannot be depended upon to produce a good setting of good fruit without cross-pollination by other varieties. A ten per cent. fruit setting of the blossoms is normally regarded as a good

commercial crop, but artificial self-pollination of Granny Smith at Bathurst has only given a setting of one per cent., many of the fruits being seedless and the remainder of low seed content. Granny Smith can be more self-fruitful or self-fertile than this under some conditions, but the significant point is that such absolute dependence on seasonal conditions or parthenocarp to produce commercial crops of the variety in a solid block is likely to be very unsatisfactory. Most varieties which blossom at the same time as Granny Smith are satisfactory pollenisers, but repeated tests at Bathurst and Glen Innes have shown that Statesman and Dunn's have failed to pollinate Granny Smith.

An interesting test was made at Bathurst Farm, self-pollinating Granny Smith one day prior to cross-pollinating it once or twice with Delicious, as is considered to actually occur under orchard conditions. It was found that there was no appreciable difference in the set of fruit or in the seed content of the fruit from that obtained by cross pollinating without previous self-pollination. These results show that the self-pollination did not prevent proper fertilisation from the subsequent cross-pollination.

Artificial pollination investigations with the variety Delicious are attended with difficulty on account of its blossoms being very susceptible to injury from emasculation and to the environmental conditions arising from bagging or caging them. Results to date show that Mountain Pippin, Rome Beauty and Tasma are unsatisfactory pollenisers for Delicious, and Mountain Pippin must be regarded for the present with suspicion as a suitable variety for orchard cross-pollination of Tasma. The best varieties for cross-pollination of these important commercial varieties can only be determined from several years' investigations of this nature.

Cleopatra failed to set fruit when pollinated either by Tasma and McIntosh at Glen Innes last season.

These pollination investigations with Apples are likely to provide results of considerable significance to the orchardist.

Mr. Bowman has also made some interesting observations on the root systems of the crossbred seedlings. He has found that the

type of root developed

is a varietal characteristic which is dominant in certain crosses. Granny Smith-Northern Spy crosses gave 100 per cent. seedlings with fibrous-rooted crowns, while 90 per cent. of Granny Smith seedlings from self-fertilised seed had fibrous-rooted crowns. Other crosses with Granny Smith, such as Jonathan, Cleopatra, Tasma, etc., produced seedlings with no crown fibre. Some seedlings produce an abundance of fibrous roots in addition to the main roots.

Mr. Bowman states that the soil and moisture conditions at Narara Nursery allow of a very free and natural expression of the rooting tendencies of the seedlings. The habit of the root system has also been observed to be largely a varietal characteristic, the seedlings of some varieties such as Jonathan, Rome Beauty, etc., tending to spread laterally while that of others such as Tasma, Buncombe, etc., are strongly descending.

Pears.

Pollination investigations with Williams and Packham's Triumph Pears have been continued since 1929 at Bathurst Experiment Farm, and the following table summarises the results obtained:

Packham's Triumph.

	No. of blossoms.	No. Set.	% Set.
Self-pollination	7,332	102	1.39
Natural set	15,769	705	4.47
Cross-pollination	4,571	758	16.58

Williams.

	No. of blossoms.	No. Set.	% Set.
Self-pollination	30,399	1,013	3.33
Natural set	16,748	1,570	9.34
Cross-pollination	8,169	2,306	28.23

These results are now conclusive that the Williams Pear is self fruitful and also more cross fruitful than Packham's Triumph under Bathurst conditions. The degree of self-fruitfulness of Williams is frequently sufficient for commercial cropping, but the improvements in shape, size and dessert quality as well as better reaction to dry conditions, strongly indicate the advisability of providing for cross pollination. While there are many reasons why the high percentage of fruit setting in the case of Williams, as shown above, from artificial cross pollination would not be obtained in practice, the increased setting is sig-

FRUIT TREES

Supplied by Goodman's Nurseries

during the 1934 planting season just finishing continued to give the utmost satisfaction. "Repeat" orders from planters speak volumes. For 1935 delivery an excellent range of varieties worked on wonderful stocks.

C. J. GOODMAN

Picnic Point
Nurseries

BAIRNSDALE, Vic.

nificant of the importance of the right provision for such pollination.

The relation of parthenocarp and of seed content to the self and cross fruitfulness of Williams, was again closely studied by Messrs. Dwyer and Bowman at Bathurst Farm last season under conditions which did not favor receptacle (i.e. fruit) development without pollination. The correlation of size and good size of fruit, eating quality with seed content and with effective cross pollination was again demonstrated. Further useful results were also obtained from tests to determine the effect of different types of cages on the parthenocarpic development of fruit.

The pollination studies with Williams at Bathurst Farm have shown that few varieties are not cross-compatible with it and vice versa. The new variety Seckel which was introduced in recent years from U.S.A. because of its reputedly high quality, gave a very low setting of fruit when Williams was pollinated by it and vice versa. Giblins also fertilised Williams poorly, but Williams caused it to set well. For some reason Doyenne Du Comice satisfactorily pollinised Williams, but set no fruit in reciprocal crossing.

An investigation has been made by Mr. Poggendorff at Yanco Farm to determine the optimum time for pollination following emasculation. The Williams Pear was used for this study and striking evidence was obtained in favor of pollination on the third or fourth day following emasculation at the "full balloon" stage, i.e., when the flower bud would have been open for one or two days. Pollination before this time and up to the seventh day resulted in the development of fruits with few seeds either from partial fertilisation or from partial parthenocarp as the result of stimulus of pollination. After the seventh day, no fertilisation was obtained nor was pollination able to stimulate parthenocarpic development.

A few Pear seedlings have fruited at Bathurst, but except for one seedling of a Williams cross which gave fruit of good quality, but of which the value is lessened as it ripens precisely at the same time as Williams, nothing of promise has so far appeared amongst them.

A marked range in the vigor of the seedlings of various crosses is evident at Narara and further observations are

being made by Mr. Bowman as to which crosses are the best in this respect.

Plums and Prunes.

The work in raising new seedling varieties of Japanese Plums has been continued at Hawkesbury Agricultural College by Mr. Shirlow. None of the seedlings planted out in 1930 have yet fruited. Mr. Bowman reports that the experience of the past few seasons is that Santa Rosa crosses have failed to germinate and that Cyca Smomo seedlings lack vigor. Shipper, Chalco and Shiro seedlings, particularly the latter, have proved to be the most vigorous, and crossing will be devoted in future mainly to these varieties as mother parents. Investigations by Mr. Shirlow on the self and cross-fertility of Shiro and Chalco show that Shiro is self-sterile and that in artificial pollinations, it was well fertilised by Narrabeen, but not so well by Santa Rosa. Chalco proved to be self-fertile to some extent, but the setting of fruit was markedly increased from pollination by Narrabeen and Santa Rosa, but not so well by Shiro. Previous results have shown that Narrabeen is self-sterile, but is well fertilised by Chalco or Santa Rosa. Cyca Smomo is practically self-sterile, and Narrabeen, Santa Rosa or Chalco are suitable pollenisers. Santa Rosa is self-fertile, but it may be fertilised well also by Chalco or Cyca Smomo.

Similar work with Prunes is being continued by Mr. Poggendorff, at Yanco. A few seedlings planted out in 1930 are expected to bear fruit next season. Seed from the Prune crosses made at Yanco in 1932 failed to germinate at Narara and not a single fruit was obtained from the crosses made during the year on account of very heavy late frosts, so that the programme in Prune breeding has been badly interrupted.

Some pollination investigations with English Plums were undertaken at Bathurst Experiment Farm during the year. The three varieties studied, viz., Angelina Burdett, Grand Duke, and President, proved to be practically self-sterile, but in each case they were well pollinated by either of the other two varieties which blossom about the same time. Pond's Seedling, however, only commenced to blossom about five days later than any of the foregoing, and thus cannot be expected to serve as an orchard polleniser for them, nor they for it.

Cherries.

Investigations in the pollination of Cherry varieties, which had to be previously abandoned at Glen Innes Experiment Farm, were resumed by Mr. Macindoe last season with the co-operation and assistance of Mr. Walker and Mr. E. G. Hall, of the Fruit Branch. The trees available and used as female parents in these investigations were Early Lyons, Florence, St. Margaret and Napoleon.

The results of previous investigations were confirmed in the finding that Early Lyons is completely self-sterile, but that it is very well fertilised by Eagle Seedling and satisfactorily also by other commercial varieties which blossom at the same time, such as Early Rivers and Burgdorff.

Florence also proved to be entirely self-sterile, but was very well fertilised by Black Eagle, Bing and Napoleon.

On St. Margaret, a reasonable set was obtained with pollen from most varieties which are late blossoming with it, with the exception of Pellissier.

Florence, Bing and Black Eagle were demonstrated to be good orchard pollenisers for Napoleon.

Mr. Bowman, who conducted similar pollination investigations at Orange, mostly confirms the results of the work at Glen Innes and sums up the pollination recommendations of the five leading varieties of Cherries as follows:—

Early Lyons — Eagle, Early Rivers, Burgdorff.

Napoleon—Florence (Bleeding Heart also useful).

Florence—Napoleon (Bleeding Heart also useful).

St. Margaret—Soft Noble or Windsor (Napoleon, Florence and Bleeding Heart also useful).

Noble—Soft Noble.

Of the seedlings which are being raised from the fruits developed in these pollination studies, some are now four years old at Glen Innes, but none have yet fruited.

Trouble is still being experienced in the germination of Cherry seed, and methods to secure a more satisfactory germination are being investigated by Mr. Bowman.

(To be continued.)

FRUITGROWERS...

Consign Your Fruit
(Apples and Pears)

through

A. J. STEWART

Fruit Exporter,

379 Collins Street, Melbourne

to old-established Brokers of the highest repute in the United Kingdom and Continent.

Highest Prices Obtained—
Prompt Returns & Settlement.

Cases and all packing materials supplied at lowest possible prices.

Cash Advances Against
Consignments.

Enquiries Solicited

'Phone: Central 2339

Reference: E.S. & A. Bank, Head
Office, Collins St., Melbourne.

FRUIT BUYERS

LEMONS, ORANGES, GRAPEFRUIT,
PEARS, PEACHES, APRICOTS,
BERRIES, CHERRIES.

BROOKE'S LEMOS LTD.

69-79 WHITEMAN STREET,
MELBOURNE SOUTH, S.C.S.

— Telephone, M 3141. —

To Improve Fruit Marketing

As Inferior Fruit Clogs the Markets, the Department of Agriculture will Enforce Grading Regulations.

ACTIVITY IN VICTORIA.

GROWERS REPEATEDLY STATE that their market for fruit would be immeasurably improved if the "rubbish" could be prevented coming forward for sale.

It is generally admitted too, that if the regulations were fully administered there would be more prosecutions until the inferior fruit was eliminated.

Seeing that the growers, the distributors and the Governmental authorities are in agreement, it needs only tactful energy to bring about the desired results.

Departmental Warning.

In Victoria, the Department of Agriculture has issued a statement in which the following is stated:—

Some difference in attitude appears to exist amongst wholesale fruit merchants with respect to co-operating with the Departmental Fruit Inspectors in their duty of

preventing the sale

of fruit and vegetables below the standards set out in the regulations to the Vegetation and Vine Diseases Act, and the Fruit and Vegetables Act.

These regulations require that diseased and unsound fruit; or fruit which does not comply with the grade standards embodied in the regulations, shall not be sold to the public. TO DO

THIS, RENDERS THE SELLER LIABLE TO PROSECUTION.

The object of the regulations is to raise the status of the fruit industry, by establishing commercial standards whereunder the public may purchase fruit and vegetables with confidence; in the knowledge that full value for outlay will be obtained. If this objective could be attained, there is little doubt that the consumption of fruit would be materially increased.

The majority of those engaged in the growing, packing, and marketing of fruit carry out their activities in compliance with the requirements of the regulations; but their efforts are impaired by the actions of a minority, who either carelessly or wilfully ignore these requirements.

* * *

As so much of the trade in Apples and Pears is done in the Victoria Market, the question was raised as to the powers of inspectors with regard to fruit in open cases.

The belief, held by some growers and distributors that vendors cannot be prosecuted if fruit is "fit for human consumption," is erroneous.

Fruit offered for sale must be sound and clean, and the maximum of blemish allowable is set out in the regulations. Those offering fruit below these standards whether in open or closed packages, are liable to prosecution.

BANANA PACKING.

The Bulge Should Not Exceed 1½ inches.

RECENT TESTS conducted by the Council for Scientific and Industrial Research, revealed that increased bruising of the fruit is likely to result if a bulge greater than 1½ in. in the top boards of the case is used when packing Bananas.

Bananas are usually packed with a bulge of ¾ in. to 1½ in. on the top and bottom boards of the case, but occasionally bulges of 2 in. and 2½ in. or as small as ¼ in. are used. The tests showed that up to the 1½ in. bulge the damage from bruising was limited, but with a bulge over 1½ in. the damage was excessive. Further, with excessively bulged, lid boards were frequently broken in transit.

STATE RIVERS & WATER SUPPLY COMMISSION.

Annual Report.

The twenty-ninth annual report and financial statement for the year 1933-34 of the State Rivers and Water Supply Commission contains much statistical information. The various items dealt with in the report include the works under control of Commission; lands supplied with water within the State; lands under irrigated culture; valuations, rates, flood protection charges and compulsory irrigation charges; works carried on or completed during the year ended June 30, 1934; irrigation and water supply districts; drainage and flood protection schemes; new storages; progress in irrigation districts; financial statement, etc. The report is signed by Richard Horsfield (Chairman), A. S. Kenyon (Commissioner), W. Trevean (Commissioner), and P. J. O'Malley (Secretary).

In Preparing Your Bordeaux Sprays Use ...

E S A BLUESTONE

Manufactured by

The Electrolytic Refining and Smelting Company of Australia Limited
PORT KEMBLA, NEW SOUTH WALES

The Right Material for Plant Disease Prevention and Control
GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: **ELDER SMITH & COMPANY LIMITED, All Capital Cities.**

BOOKLET—"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Company Ltd.

CROP PROSPECTS.

(Continued from page 25.)

NEW ZEALAND.

The Director of the Horticulture Division (Mr. J. A. Campbell) has received the following reports from his officers regarding orchard and marketing conditions at the end of November, 1934:—

Auckland. — Apples and Pears, light. Lemons, heavy blossoming. Oranges, fair setting. Peaches, light to average. — (L. Paynter.)

Hamilton. — Apples, average. Pears, light. — (R. G. Hamilton.)

Tauranga. — Apples, good average. Lemons, heavy blossoming. Oranges, good blossoming. Peaches, fair. Pears, good. — (A. R. Grainger.)

Gisborne. — Apples, light to medium. Lemons, average to short summer crop; heavy blossoming. Oranges, heavy blossoming. Pears, average to light. — (P. Everett.)

Hastings. — Apples, average; Delicious, light. Pears, light to average. — (N. J. Adamson.)

Palmerston North. — Apples, light. Peaches, fair average. Pears, patchy. — (J. W. Whelan.)

Masterton. — Apples, Peaches, Pears, average. — (H. F. Frost.)

Nelson. — Apples, delicious, Cox's, Dunn's, Statesman, light setting; Sturmers and Jonathan, medium to good. Pears, light to good. — (J. H. Thorp.)

Mapua. — Apples, fair; heavy dropping. Pears, good to heavy. — (M. Davey.)

Motueka. — Apples, light to medium; Granny Smith, heavy. Pears, light to medium. — (G. Stratford.)

Blenheim. — Apples, average. Pears, light to average. — (D. J. Hogg.)

Christchurch. — Apples, medium; Lord Wolseley, light. Peaches, medium to heavy. Pears, average; Winter Nelis, light. — (B. G. Godwin.)

Dunedin. — Apples, light to average; heavy dropping. Pears, light. — (G. H. McIndoe.)

Alexandra. — Apples, average; Delicious below average. Pears, below average. — (W. B. L. Williams.)

ITALIAN GRAPES.

Grape culture in Italy has been known since time immemorial, but it is for their wine more than for drying that Grapes are so efficiently grown, suffering little change in their treatment for generations of production under sunny skies in most fertile earth.

There are so many varieties and qualities of wines in Italy that she can satisfy the most different and critical tastes. Every region, from Sicily to the Alps, is noted for its special wines, which differ so greatly in color, taste and bouquet, and are marketed in containers ranging from straw-covered flasks to every kind and shape of bottle or jar.

Under expert supervision, unhealthy or previously barren lands are being transformed into fertile and profitable fields and vineyards, and, in Italy, vines mean, almost universally, wines.

The varieties grown are too numerous to mention. The most famous of Italy's wines come from districts which are suggested in the names they bear, thus the Italian knows from what district Polcevera, Coronata, Soave, Vermentino, Cinqueterre, Ribolla, Castelli Romano and many others come and whether it is the full red wine of this district or the sweet dessert wine of that.

Italy is quoted as producing more Grapes to the cultivated acre than any other country in the world, as well as cultivating more varieties than any other single country, irrespective of the area planted with vines. The Grape vine is seen everywhere in Italy, whether hanging in festoons between rows of trees or trailing from cane supports in the valley, or trained on pergolas or covering the walls of cottages or barnyards, palaces or hovels, or stretching as far as the eye can see on the slopes of the hillsides. Nature smiles on the Grape vines of Italy, and rewards the industrious producers with a prolific and dependable harvest.

EASTERN MARKETS SOUGHT BY W.A.

An attempt by West Australian fruit growers was recently made to exploit new markets in the Far East. Following conferences between the Growers' Marketing Section of the Primary Producers' Association and the State shipping service, it was decided to send trade representatives to the Malay States to develop trade with Western Australia, and Mr. B. V. Brooks, president of the Marketing Section, and Mr. H. J. Prater, general secretary of the Central Council, were appointed to undertake this mission. The State Shipping Service promised to co-operate to the extent of giving concession rates on fares and to transport samples free of cost.

COMPANY NEWS.

Rosella Preserving and Manufacturing Co. Ltd. The annual report of the directors shows satisfactory business during the past year. For the first time in its history the company's assets exceed half a million pounds. A dividend of 8 per cent. was approved, and a debt to bankers of £640 last year, has been converted into a credit of £19,565. The new factory at Newtown, Tasmania, is now completed, and will be in full operation by the beginning of 1935. Additions have been made to the South Australian factory, and it is anticipated that additional plant will be required this year.

H. Fredman Pty. Ltd. Registered 12/12/34. Classified as orchardists, gardeners and florists. Capital: £3,000 in £1 shares. Subscribers: Harry Simon Fredman and Arthur Herbert Palmer.

SHEPPARTON HAS GOOD YEAR.**Profit of £33,000.**

The annual report of directors of the Shepparton Fruit Preserving Co. Ltd. shows a very satisfactory condition. A substantial increase of turnover, as compared with last season, is reported, and profits were well maintained. The net profit of £33,070/9/3 allows a 10 per cent. dividend on all paid-up capital, a bonus of 2½ per cent. and a balance of £6,537/1/6 to be carried forward. It is also proposed to grant an additional payment of £1 per ton to growers who supplied fruit to the cannery last season; this, with a bonus of £2 per ton paid some months ago, will absorb a total expenditure of £17,000. These bonus payments have raised the prices paid by the cannery far above those fixed by the Sugar Concession Commission, and should place 1935 suppliers to the Shepparton cannery in a favored position.

Get New Ideas**Better Fruit Magazine**

Is the business publication of the prosperous Pacific North-west fruit industry. Twenty-seven years of worthwhile service has gained the confidence of its readers as few publications ever do.

Practically every new method and appliance used by the apple industry was originated and developed here. Keep posted on events and learn of profitable new ideas that will increase your income.

Subscription price, \$2.00**— a year, post paid. —****SAMPLE COPIES FREE.****Better Fruit Publishing Company****Portland, Oregon, U.S.A.**



"Knowledge is proud that he has learned so much,
Wisdom is humble that he knows no more."

—Cowper.

Useful Recipes

SANDWICHES.

Substantial, Dainty and Sweet.

Rumpsteak Sandwich: For a substantial luncheon sandwich, cook a thick, tender piece of rump steak lightly—if over-cooked the sandwich will be spoilt—and then leave it to get cold. Chop it finely, and, for half lb. of steak add a saltspoon of dry, unmixed mustard that has been blended with an ounce of butter and a little pepper and salt. Add a little thick horseradish sauce, and use for putting between rolls, from which some of the crumb has been scooped.

Another delicious sandwich, also of the substantial variety, can be made with calf's liver filling, though seldom do we find it used. A piece of liver must be braised and allowed to go cold in the gravy, then mince it and mix with it a little finely chopped ham or bacon. The liver should not be hardened with over-cooking, and the bacon should not be fried too crisply. Season the mixture to taste, and mix with it a little warmed butter and a spoonful or two of cream to bring it to the right consistency for spreading. Use it between slices of either white or brown bread, and garnish with a few leaves of cress or Lettuce.

Horseradish Sandwiches: Two teaspoons evaporated and fresh Horse radish soaked in $1\frac{1}{2}$ tablespoons vinegar for ten minutes. Melt piece of butter size of a Walnut in a saucepan, and kneed in one tablespoon flour, add $\frac{1}{2}$ pint milk, and let it boil to thicken flour; then add Horseradish and vinegar, $\frac{1}{2}$ teaspoon unmixed mustard, $\frac{1}{2}$ teaspoon pepper, $\frac{1}{2}$ teaspoon salt and 1 tablespoon sugar, and let boil two minutes. Use when cold. This can also be mixed with cold Potato.

Potato Sandwiches: Mash cold Potato till quite smooth; spread thinly on bread and butter; over this grate cheese, and then dust with nutmeg, or cheese may be

omitted, or mix a little anchovy or Worcestershire sauce with the Potato alone, and spread on well-buttered bread.

Brown and White Sandwiches: Butter a slice of brown bread and spread with paste, ham, anchovy, bloater, etc.—cover with a slice of buttered white bread, spread in turn with paste and covered with a brown piece, then again a white slice over the filling. Press well together and roll in grease-proof paper leaving for an hour. Then cut into dainty fingers, whose checked appearance will look uncommon. Sweet sandwiches may be the standby of the housekeeper when unexpected guests arrive, and the cake box is empty.

Pineapple Rolls: Split some rolls and take out a little of the crumb. Chop some preserved Pineapple finely and pound it to a pulp, adding a little cream. Then stir in a tablespoon of finely chopped sweet almonds and use for filling.

Banana Sandwiches: Brown bread and butter with thin slices of Banana is useful for a sweet sandwich. When a sweeter sandwich is wished, place the thinly-sliced Banana between thin slices of milk bread and butter, and over the Banana a layer of whipped and sweetened cream. For a sandwich de luxe, cut slices of sponge cake with slices of Banana and whipped cream between, or use sponge fingers, cutting the Banana longitudinally for these.

Jams and Jellies in Season.

Red Currant Jelly: Cover Currants with water and boil till soft, then strain and allow one cup sugar to one cup liquid. Boil till it sets. Test after 20 minutes' boiling.

Black Currant Jam: Pick off stems but not tops, and to every pound of fruit add 2 lbs. sugar and one pint water. Boil 30 to 40 minutes.

Raspberry Jam: 12 pounds Raspberries, 12 lbs. sugar. Heat sugar in oven; mix well with Raspberries in preserving pan, and bring to the boil. Boil quickly for 7 minutes.

Dried Apricot Jam: Soak 2 lbs. preserved Apricots in $2\frac{1}{2}$ quarts water for two days and two nights. Then boil together for quarter of an hour. Add six pounds sugar and boil until a nice consistency. One hour should be sufficient.

These quantities should make 15 lbs. jam.

Fruit Jelly to Eat With Meat: Equal quantities of Sour Apples and Damsons, say, 6 lbs. each. Wash Apples and cut up roughly; wash and drain Damsons. Put in preserving pan, and cover with water, cook very slowly for half an hour or until the Apples are tender. Then strain liquid through sieve and measure. To each pint of liquid allow $\frac{1}{2}$ pint vinegar, and an equal quantity of sugar, $\frac{1}{2}$ teaspoon wholespice, and $\frac{1}{2}$ teaspoon peppercorns, 2 onions sliced, 2 small Chillies. Boil quickly. Test till it jellies, which may be in about 15 minutes. Strain and put in glasses.

Rhubarb and Apple: Two bunches thin red stalks, 6 lbs. sour Apples, cut up and cover with water. Cook about 35 minutes, strain and add $\frac{1}{2}$ lb. sugar to a large cup liquid. Boil till it jellies.

Spiced Apple Chips: Six pounds sour Apples, $\frac{1}{2}$ oz. stick cinnamon, 1 oz. whole ginger, 3 lb. sugar, 1 pint vinegar. Heat vinegar and gradually add sugar. Cut Apples into chips and drop in syrup. Tie cinnamon and ginger into a bag. Cook till Apple chips are tender, but let them retain their shape.

CHILDREN GETTING TALLER.

Modern children are taller, but lighter than those at the same age twenty years ago, according to charts and statistics kept by the Department of Health in Scotland. This applies in the case of both boys and girls. The increase in height being as much as three inches in the case of girls at $5\frac{1}{2}$ years of age. In the twenty years under review it is found that, whereas boys developed more quickly in the early years and were taller and heavier than their sisters, that superiority has now almost vanished, and the girls are maturing comparatively earlier. Amongst some reasons for this change in growth are cited changes in living conditions, looser clothing, more organised sport, and, above all, fashions that now allow girls to let the sun play on their skin in ordinary as well as in sports attire, which has the effect of strengthening their physique. If this is so, and it is reasonable to expect such results, the point should be noted by parents.

TOMATO JUICE.

As a source of vitamins the Tomato is second to none, as it contains properties that prevent many ills, and build up the body and nervous system. It contains a fair proportion of Vitamin A, which not only promotes body growth, but also imparts to the system certain distinctly anti-infection factors of utmost value. Kellogg states that the Tomato contains nearly twice as much iron as does milk, and five times as much as the white of egg. He also claims that Tomatoes are richer in iron than Apples, Pears, Oranges, Grapes and many vegetables, and has three times as much lime as mutton, beef or fish. Hess states that infants can be given Tomato juice with great advantage, the average child requiring about one ounce daily.

With the concurrence of most medical authorities on the value of Tomato juice, it is more than a passing fad that American people are latterly consuming vast quantities of Tomato juice, necessitating the factories preparing the juice for sale extending their plants. The popularising of this healthful tonic-food would be a contribution to the health of Australians.

FRUITS IN ICE-CREAM.

Although there has been, in the past, an excessive use of artificial coloring and synthetic flavorings used in fruit ices and fruit ice-cream by manufacturers, we are glad to note a recent trend towards the use of more fruit, as it should be. Vitamin C is abundant in many fruits, and is very important to the health of both adults and children, supplementing in fruit mixtures the small amount of Vitamin C introduced in the milk products used.

The value of fruit ices in the summer time is that they are lower in calorific (heat-producing) properties than many other foods, and their natural acidity is thirst-quenching and refreshing, therefore, they should be included in salads and desserts during this period. Some fruit ices, especially those including Prunes, have a positive laxative effect which is beneficial from the standpoint of health. In making ice-cream at home, fresh fruit may be put through the food chopper and the pulverised fruit, together with the juice, added to the ice-cream mixture before freezing. Should the "body" of the fruit not be desired in the ice-cream the flavoring may be obtained by the use of the juice only.

In water ice, fresh fruit juices may be used with great satisfaction. Orange, Grape and Strawberry are probably the most popular. Apple juice is also quite suitable.

POULTRY NOTES

Fowls on the Orchard.

Some housewives on orchards often make a fair amount of "pin money" by keeping enough fowls to supply eggs and poultry for the table, and have some surplus over for market, which brings up the question of whether it is worth the extra time involved in an already full daily programme for the housewife to run fowls.

Experiments carried out on the Werribee Research Farm (Vic.) show that under proper management 13/- per head over the cost of feed has been returned from poultry. Many wheat farmers report a profit of 10/- per bird, but many report less profit than that amount generally, it is feared because of inexperience or from lack of good equipment.

Another factor enters into the question, as it does into all production, namely, that the operator must have a liking for fowls and not consider the work just another job tacked on to many others. Even apart from market returns, the eggs and poultry used by the household can be worth while, and provide an economical part of the food supply, and the fowl yard still be an asset. Families fond of cake and other domestic commodities in which eggs are freely used, will find that the fowl yard is a valuable contribution to the table requirements, eggs having so many good qualities when considered as food. Dietitians state that a combination of eggs, fruit and milk provide all the constituents required for a perfectly balanced menu.

Summer Care.

As the hot weather increases care should be taken to see that the birds are not overcrowded on the perches. Any crowding together of the layers is likely to result in an early moult, with the consequent loss of production. Perches placed less than 20 inches apart do not give the birds enough room. Look them over then at night, and check up on their positions.

A free circulation of air must be available. If in intensive sheds, the ventilators that were closed for the winter should be opened up when the hot nights come.

Attention to water is vital. See that the vessels are clean and that either running water is provided or that the drinking vessels are kept clean and filled regularly with cool water, and are placed in the shade in accessible places.

Green Feed.

The approach of summer reminds us of the necessity for providing plenty of green feed for the fowls. This impor-

tant provision is often overlooked, but it is all the more necessary when birds are confined to houses or small runs. Green feed serves three main purposes. It tends to promote health and to produce more eggs. It gives the eggs that rich color that we desire, with a decidedly better flavor, and it materially reduces the feed bill for grains.

Succulent green feed is ideal, but when the summer advances and fresh leafage is less plentiful, other greens should be provided. Silver Beet, Lettuce, young Cabbage, Rape, Mangolds, Carrots, or sprouted Oats may be used to advantage.

One of the worst checks to healthy development is a lack of green feed during the growing stage of the birds, and an effort should be made to supply this part of their food

BE METHODICAL.

Experienced poultry farmers find that egg production is stimulated if regularity of management is accorded to their flocks. They state that the hen is a creature of habit, and becomes accustomed to performing her duties at the same time every day; she lays her egg at about the same hour, is waiting at the door or gate at the same time each night for her food, looks for her feed of green-stuff or wet mash or extras at the same hour, and even becomes accustomed to the same attendant to care for her.

This cue might well be taken by the small poultry keeper with advantage. It is submitted that this is one reason why egg-laying competitions get such good results. There is an established schedule for all the regular work done, and the hen acts accordingly. It is at least a theory worth considering.

A LAYING MASH.

A wet mash recommended for layers consists of (by weight): Pollard 60 lbs., bran 20 lb., milk or meat products 10 lb.; coconut meal, such as Key-meal or Eggoleen 10 lbs. To this should be added a small quantity of salt, no more than would approximate 1 per cent.

PREVENT WASTAGE.

One of the commonest faults with dry feed hoppers is that they permit of the food being easily scratched out. A good dry mash hopper should have a "lip" on the outside to prevent this wastage. When wet mash is used it should be

mixed to a consistency that will be neither too flaky nor yet too wet, also, that no more is fed to the birds than a reasonable allowance. If too much bran is used the mash will not bind, and will be scratched about, and, becoming dry, will not be eaten. In mixing wet mash

the bran should be scalded first and then the pollard mixed in. For adult birds, the mash should be wet enough to adhere together under pressure of the hands, yet not sticky, and should break apart when dropped into the feeding trough.

THE PIG PEN.

MONGREL PIGS.

As is the case with most stock, it does not pay to breed the poor strains of pigs. Mongrels, crossbreeds and boars of nondescript breeding, as well as sows of whose breeding no records are kept, are a loss to the pig industry. This class of pig is more susceptible to disease than are pure-breeds, and they usually require more feed, and cost more than they bring when sold. The common "runt" or undersized pig will never be profitable, and, unless wanted as a pet, should be disposed of. It is a good plan to breed and feed only well-bred pigs.

Potatoes for Pigs.

Where pigs are run in Potato growing districts, Potatoes are satisfactorily used for pig feed, the small tubers and culls being so used. Though of no value for market, they can well be used up in this way. They should be cooked, however, as this allows the pig to make the most use of them. Potatoes contain about 20 per cent. of dry matter, the greater part of which is carbohydrates, but only a small proportion of protein; therefore, the feed should be supplemented with foods containing proteins in order to balance the ration. The addition of about 10 per cent. of meat meal or separated milk would meet this requirement.

Clean Pens.

In spite of the general opinion that the pig is a dirty animal, it is not really so. Instinctively clean, the pig prefers clean quarters to develop and fatten in its best manner. The quarters should be clean, dry, weatherproof, and free from draughts, whilst the pasture over which the pig runs should be clean and well supplied with succulent herbage.

Pig houses should be constructed high enough to allow the cleaner to move about in comfort in the care of the stock, and should be open to the sunlight in the winter and shaded in the summer. Feed troughs should be kept clean, and the floor reasonably so, not only for the health and comfort of the pig but to obviate bad smells arising. After all, although he's a pig he is part of the live-stock of the farm, and should receive good management.

Minerals.

Why is it that pigs will be seen to eat cinders, charcoal, burnt corn cobs, and all sorts of what may be termed rubbish, and why do they persist in chewing bones? The Queensland Agricultural Journal explains that it is because their bodies demand a certain amount of mineral matter, and such substances as those mentioned contain necessary mineral nutrients, to obtain which the pig indulges in the habit of chewing them. If liberal supplies of mineral matter are provided the pigs will grow and develop to advantage.

Pig Losses.

The greatest losses in young pigs are due to diseases caused by defective feeding—such as rickets—or by animal parasites, and both sets of conditions are not difficult to remedy. It is an axiom in sanitary science that no animal can exist in more or less enduring contact with its own waste products without the risks, sooner or later, of an outbreak of disease; owing to the prevalence of parasites this becomes a certainty, and the mortality—especially in young animals—is extremely high. On the other hand, in well-kept, hygienic styes, parasitic disease can be kept to a minimum and the result is immediately apparent in increase of condition and decrease of mortality. Adequate drainage is essential, and no pools should be allowed to exist to which pigs have access. Feeding from the ground should be avoided, and the provision of raised sleeping quarters which the pigs learn not to defile, is desirable. Manure removal should be thorough and frequent, and the pigs should not have access to the manure beds. Cleanliness must not be superficial, as this gives merely a false sense of security, and is not true economy.

Oats are Good Feed.

Under some conditions, oats are a satisfactory food for pigs, but should be used crushed, bruised or rolled. Grinding should be a little finer than wheat-meal or maize-meal, owing to the oat grain being very hard. They are a particularly good food for finishing off the fattening process and for brood sows. In the form of green feed, Oats are useful, and make a good combination when mixed with Wheat, Barley or field Peas. In the green form, those having the best bulk of leafage are preferable.

HEALTH NOTES.

EYE STRAIN.

Insistent headaches can frequently be traced to eye-strain, especially after reading small print or too close application to study or writing. People who have worn the same glasses for some years should again have their eyes tested, as it sometimes happens that slight changes take place in one or both eyes over a period of two or three years. It is wise to check up with a good optician periodically and have such errors, if any occur, corrected.

At a recent conference of optometrists held in Sydney, a warning was issued to people whose eyes were exposed to strong sunglare, such as is experienced by sun bathers during the summer months. Too much exposure to the sun is one of the causes of eye strain. Most leading opticians will give eye tests and examinations without charge, and will advise enquirers regarding this important matter.

USE THE THERMOMETER.

So few homes have a properly fitted medicine chest or first-aid outfit. Even if a few bandages and some ointments are scattered about in the bathroom, very few people have a clinical thermometer or know its uses. The normal temperature of an adult is 98.4 degrees F. Should the patient feel hot or flushed, take the temperature by placing the bulb of the thermometer under the tongue, closing the mouth and allowing it to remain for the time of the particular thermometer being used. Generally speaking, a slow registering one should be obtained; 1 to 1½ minutes gives good results. The increase of temperature over 98 or 100 means that the patient is definitely in a fever, and should be put to bed, and steps taken to abate the fever, at the same time finding out the cause of it.

In some people constipation will induce fever, in others excitement, headaches, colds, chills, worry, germs and other causes. The immediate treatment is to isolate the patient in bed preferred, stop all food, but give plenty of liquid to drink, give opening medicine, keep the body clean and cool by judicious sponge baths, and let nature throw off the fever. If it persists, call in the doctor.

Should the thermometer disclose too little temperature, it may suggest shock, heart failure, stoppage in circulation, or collapse. Place the patient flat on back, no pillow. Give warm milk or coffee to sip. Place hot water bag at feet and on stomach. Do not rush for brandy unless satisfied the heart is all right, and other outward restoratives will not bring reaction. The main thing is to restore warmth to the body while awaiting the arrival of the doctor.

Motor Cars and Trucks

Useful Hints

ROADSIDE REPAIRS.

With the coming of warm weather, more cars and trucks will be making longer trips than in the winter, and, whether on business or pleasure, it is no less annoying to be held up on a road far removed from a garage and service by motor experts. Granted that motor cars are becoming more and more trouble-proof, there are still some difficulties that may be encountered out on the road, when even temporary repairs are required. In most cases, common sense and a little ingenuity will overcome the problem. All drivers should carry such simple articles as a large piece of inner tube, insulating tape, copper wire, an empty sack, a few feet of rubber tubing, a puncture repair outfit, for even though one spare tyre is carried it is always possible that two flats may be suffered on a long trip, a couple of corks, a piece of candle, a few leather washers of different sizes, and a spare sleeve for tyres. With this outfit, plus a good kit of tools, one can feel safe.

Should the carburettor float be punctured, the simplest temporary repairs will be effected by enlarging the hole and plugging it with a piece of cork or rubber.

A blown fuse can generally be fixed temporarily by wrapping it in tin foil from a cigarette packet or cake of chocolate, so that both ends of the fuse clips are connected.

Though not actually coming under the classification of roadside repairs, attention to grease cups may obviate a driver being held up on the road, and is therefore a good reminder. Drivers should

become acquainted with the placement of grease cups on all wearing parts. These should be inspected frequently, and filled if necessary, and should be screwed down at definite intervals. Wherever there is a moving part there is friction with a certain amount of wear, which can only be reduced to a minimum through constant lubrication. The driver who does not turn down his grease cups is the one who pays many times for parts replaced, partly from neglect.

A petrol pipe broken during driving can be satisfactorily repaired by slipping a piece of rubber tubing over the broken ends and tying it securely with thin copper wire or strong string at each end. If no tubing is carried a piece can be cut from the air tube feeding the windscreen wiper. Should the petrol pipe be only cracked, turn off the petrol and smear soap over the fracture, and bind it tightly with cloth or insulating tape. This job is purely a temporary expedient, and eventually the petrol will work through. Have the pipe replaced properly as soon as possible.

These brief reminders do not claim to cover all the petty troubles that may be met with on the road, since sometimes the most unexpected failures occur, but care and method will meet almost any contingency.

A final word on road courtesy is seasonable during the touring season. The cultivation of the spirit of give and take is recommended, and adds to the pleasure and comfort, as well as the safety of the road. Without making it a burden during driving, let the motto be "safety first."

VALVE TAPPETS.

Most motor engines need periodical tuning up, and in certain cars the valve tappet clearances may require frequent attention. If too loose there is a certain amount of loss of power, as well as a distinct increase in rattle or noise, whilst if too tight the engine is being asked to contribute more power than it should. A feeler gauge should be used to check the clearances. Gauges of the correct thickness can be obtained from any motor accessory dealer, and it is a simple job to slip it between the valve stems and the tappet heads to show if the clearance is sufficient or needs adjustment.

DO TRACTORS "PACK" THE SOIL.

Prejudice against tractor ploughing on the grounds that the passage of the tractor over the soil had a deleterious effect upon the root action of the subsequent crop, does not seem to be substantiated by actual experience. The argument that a tractor packs the soil and makes it impenetrable to the roots and so deprives the plants of a potential and necessary form of food, is held by some farmers. As against that argument, however, it is claimed that a team of heavy horses, say about 1,500 lbs. weight, employed in ploughing, will result in a pressure of 32.5 lbs. per square foot for the hind feet alone, especially if a heavy implement is drawn, which far exceeds the pressure of an average tractor with ordinary wheels. Again it is claimed that more modern designing has considerably lightened tractors, and that chain-track machines leave hardly a perceptible tread, whilst horse pressure is incapable of any modification. Carrying the argument still further, the advocates of tractors point out that the generous bearing surface of the new large pneumatic tyres, with which the most modern tractors are now fitted, makes the comparison between the relative packing tendencies of horse hoof and tractor wheel more greatly favor the tractor.

A celebrated French agricultural engineering expert, after taking precise measurements of the respective areas compressed, degrees of pressure and depth, declares that the modern tractor is superior to the horse and even to oxen of equal power.

M. V. POINT MOTORS (AUST.) PTY. LTD.

FOR BETTER USED CARS AND TRUCKS AT LOWER PRICES.

This House absolutely GUARANTEES every Car and Truck to be in excellent running order. Prices are extremely low, and represent the highest value obtainable. Easy terms to suit YOUR convenience will be arranged with pleasure. If you want a good reliable Used Car or Truck see M.V. Point Motors First.

THEY STAND BEHIND THE CARS AND TRUCKS THEY SELL.

374 SWANSTON STREET, MELBOURNE.

Phone: F 4104.
(2 lines).

Opposite
a'Beckett Street.

RUNNING-IN A NEW TRUCK.

With the acquisition of a new vehicle, the average driver may be inclined to "show off" or to speed up in sheer delight at having a brand new vehicle to play with, and may forget that unwise driving in the early days may cost him a lot of efficiency in his truck later on. To give the new truck the rough usage which perhaps the old one received, cuts down its life of usefulness by years, whereas, considerate handling may prolong it. The wise driver of a new vehicle will therefore control himself, and drive even over-carefully until the vehicle has been well run in. Careful attention to lubrication is an important part of the early treatment, as is also the handling of the gears and getting used to the feel of the new truck. It is still another case wherein common sense should prevail.

A MECHANISED FARM.

In view of the attention which is continually directed towards mechanical aids to farming, not only by motor companies who wish to sell machines, but also by technical and general newspapers, the following details of a mechanised farm in U.S.A. may be interesting. The farm covers 95,000 acres and is equipped with 56 tractors, 72 binders, 11 threshing machines, 21 combination harvester-threshers, 500 motor ploughs, 200 motor trucks, 20 motor tractors, and 10 motor cars. 75,000 gallons of petrol can be stored at once. 1,000 acres can be ploughed, prepared and sown in a single day, and on an average a bushel of wheat requires only 10 minutes of labor to produce, compared with three hours formerly.

WATER IN THE PETROL.

An indication of water in the main fuel supply or in the float chamber is not necessarily a proof that the quality of the petrol being used is poor, it may be due to the natural condensation of moisture. It is a good plan to periodically clean all filters and sediment traps in the fuel system. Water, being heavier than petrol, will gravitate to the lowest part of the tank, and will only bother one when the petrol tank is nearly empty. Some tanks have a wick which absorbs such water, but even so the tank should be drained occasionally when it is nearly empty and flushed out with petrol to remove any sediment that may have accumulated. Should the driver not want the trouble of draining his main tank, a piece of chamois leather affixed to a wire or stick can be used, as the chamois will absorb water readily. The vacuum tank, filter and carburettor should also be cleaned out periodically as it is surprising what dirt they collect.

SKIDDING.

Bad skidding is not always dependent upon slippery roads. It is sometimes due to unequal brake adjustment. Drivers, after making sure that there is no following vehicle close behind them, should try pulling up suddenly on a dry road to see if the car or truck deviates from a straight line, or if the tyres on one side only score the road. If they do, it will indicate that the brakes need adjustment, which should be done at once. Skids are often the cause of accidents or the car becoming unmanageable.

POWER ALCOHOL FROM WOOD.

In its search for synthetic substitutes, science is evolving some extraordinary concoctions, not the least remarkable of which is the production of power alcohol and cattle food from wood. It has been discovered that certain varieties of wood contain a combination of two complex substances, cellulose and lignin. Under certain treatment these can be converted into sugar which in turn can be fermented by yeast to give alcohol and carbon dioxide.

The process of production has, up to the present, been too costly to be commercially practicable, but Dr. Bergius, a German scientist, who discovered the process of hydrogenation of coal to produce oils, has improved the process, until, with the use of waste timber and sawdust, it may soon be possible to produce power alcohol in an economical form. The experiments suggest that a large yield of sugars may be obtained from wood, part of which can be further treated to form alcohol, and the re-

mainder left in the mash state and neutralised so as to supply cattle food.

Whilst not yet perfected, the Bergius process may yet open up new possibilities in the search for cheap synthetic fuel, and if its adaptation to cattle food proves practical an even more valuable contribution by science may be made to the world.

SUN POWER.

Two Dutch engineers announce that they have discovered the means whereby the sun's rays can be harnessed and their power multiplied a thousand times in a photo-electric cell, thereby producing sufficient power to drive a motor-car or aeroplane engine. We know that in Egypt the sun has been made to work for man by the concentration of its rays on solar boilers which generate enough steam to drive low-pressure turbines, but if the Dutch discovery amount to anything it will, if practicable, revolutionise industrial machinery, provided always that the sun can be induced to shine consistently for a reasonable time, a doubtful expectation in some climates.

MORE ABOUT SQUEAKS AND RATTLES.

A contemporary gives another hint upon finding elusive squeaks and rattles that so annoy a driver when he cannot locate them readily. Take the car to the top of a long hill and allow it to coast down with the engine switched off. Running thus without the noise from the engine, it is much easier to listen attentively and is usually easy to locate the squeak or rattle.

**QUICK
SALE
BY
AUCTION**



**B
R
E
M
E
N**

**FRUCHTHANDEL GESELLSCHAFT
SCIPIO & FISCHER**

BREMEN

Cables: Orange Bremen.

THE ... Market Grower

Items of Interest

Official Organ of the Market Gardeners and Fruitgrowers Society of Victoria.

President: E. A. Le Page.

Vice President: Cr. A. Bunney.

Committee: G. Ryan, C. James, C. Baker, L. Lawrence, J. Hawkes, J. Stocks.

Arbitration Committee: H. V. Barnett, W. Simmonds, E. A. Le Page, H. Besant, W. D.

Barnett. Secretary: Cr. C. C. A. George, Highett Road, Moorabbin, Vic.

Also Official Organ of the Koondrook & Barham Tomato Growers' Association.

TOMATO GROWERS' MEETING.

A meeting of the Koondrook and Barham Tomato Growers' Association was held at Barham on December 5, Mr. E. K. Bailey presiding.

There was a discussion regarding the better carriage of Tomatoes by rail, i.e., the stacking of cases to permit a free passage of air. The unevenness of the floors of railway trucks was regretted. It was decided to keep in touch with the Railways Department in regard to these matters.

Mr. A. G. Cassidy advocated allowing the Tomatoes to cool down before packing.

Addresses regarding the Victoria Mark system of standardisation and marketing were given by Messrs. F. G. Beet, F. Cave and R. E. Boardman.

It was decided to appoint "The Fruit World and Market Grower" as the official organ of the Association.

Mr. W. Harris, Asst. Fruit Packing Instructor, Victorian Dept. of Agriculture, urged the value of standardisation. He advocated using the half-dump case.

CROPS AND SEED.

Heavy harvesting of Potatoes, Tomatoes, Lettuce, Cabbage, and Onions were reported in December. Onions have cropped heavily, and seed selection will be plentiful. Late Onions now nearing maturity do not need irrigation, as it will not influence yields, moreover, if partially dry their keeping qualities will improve. They should be harvested by lifting the bulbs and throwing them into windrows to dry out the tops and roots.

The selection of seed should come from an early maturer, of good shape, and with a fine outside skin. Experienced growers select a seed bulb with sloping shoulders, that will shed rain and prevent decay. In storing the seed,

the top growth should not be cut, but tied and hung from the roof of a dry shed.

Cauliflower seed should be harvested at once if not already collected. The Cauliflower seed pod is not really a pod, but a seed container with two rows of seeds divided down the centre by a small film. When the seed is ready for harvesting the pod bursts open, and the seed falls to the ground. Naturally, the seed should be collected before the bursting occurs. The proper time for harvesting is when the majority of pods on one plant are at the golden brown stage, with a few of the earliest pods bursting and a few of the later ones still on the green side. Care should be taken, however, not to cut the plants too green, as they will then generally fail to germinate. When satisfied that the whole plant is ready for harvesting, it should be pulled up and hung in the barn, pods downwards, over a cloth to collect the seeds that may be mature enough to drop.

Those orchardists having Marrows coming along can stimulate them by dressing with liquid manure at the base of the hills. Horse or poultry manure, well diluted, is recommended.

Should summer Cabbage crops appear to wilt owing to hot weather conditions, they can be assisted by overhead watering two or three times a week, and by assisting leaf growth by a side dressing of sulphate of ammonia, about 1½ cwt. to the acre.

VEGETABLES IN NEW BAGS.

The authorities in New South Wales advise that vegetables coming from other States must be packed in new bags or containers. The previous practice of using secondhand bags for such vegetables as Pumpkins, Carrots, Parsnips, etc., is now prohibited.

Tomatoes at Echuca.—About the same acreage is under Tomatoes in the Echuca district this season as last year. The fruit is of good quality.

FERTILISING VEGETABLES PAYS.

It has been clearly demonstrated that it pays to fertilise Tomatoes and Cabbages liberally, but it does not pay to use much fertiliser on Beans and Peas. Professor C. B. Saye, of the vegetable section of the New York State Experimental Station has, for some years, been conducting comprehensive fertiliser experiments with vegetable crops, and the above conclusions are the result of his work to date. Eighteen different kinds and amounts of fertilisers are compared in their effect on the yields of various kinds of vegetables, and the study gives a fair indication of the returns farmers should get from the application of fertiliser to average soils in that State.

With all vegetable crops, he explains, the principal limiting factor is phosphorus, with nitrogen next. When both of these are supplied in sufficient quantities, the addition of a little potash seems worthwhile. In his State he recommends as the most profitable fertiliser for a farmer to use for vegetables, a formula of 4-16-4, or possibly 4-12-4, dependent upon what quantity he is willing to apply per acre. The increased yields, he believes, will more than repay for the cost of fertilisers intelligently applied. Three hundred pounds per acre on a 4-16-4 basis is likely to prove profitable for other vegetables, but for Tomatoes 1,000 lbs. of 4-16-4 will give a yield that will pay for the more liberal treatment.



"Plane" Brand Dusts

"Beauty" (Knapsack) Dusters

"Superior" (Rotary) Dusters

ARE MANUFACTURED BY

N. N. McLEAN Pty. Ltd.
MELBOURNE

PACKING TOMATOES.

(By B. P. Krone, Fruit Packing Instructor.)

(Reprinted, by courtesy, from the "Journal of Agriculture, of Victoria.")

THE accompanying chart (Chart I.) has been specially designed for packing Tomatoes in the "long" bushel case, of which the inside measurements, clear of the division, are 26 inches x 6 inches x 14½ inches.

The counts shown on this chart are as easily packed as Apples. At least eighteen different counts are used for

Apples, while ten counts are ample for Tomatoes.

Tomatoes should be packed not lower than ½ inch, nor higher than 1 inch above the top of the case before lidding. It is preferable to pack Tomatoes the maximum height and delay the lidding process until the last possible moment.

The correct placing of the first layer

is the most important factor in securing correct height.

It is the size of the "pockets" or spaces that regulates the height of the fruit.

No two fruits rest directly on top of each other in any direction.

Packing fruit to the correct height in the case and the "snugness" of the specimens in each layer are the important features for its safe carriage over long distances.

White lining paper and new fruit cases enhance the value of the fruit. Dirty cases lined with newspaper should not be used.

Grade for color; don't pack green and colored fruit in the same case.

The diameter of the Tomato is measured from cheek to cheek, not from stem to eye.

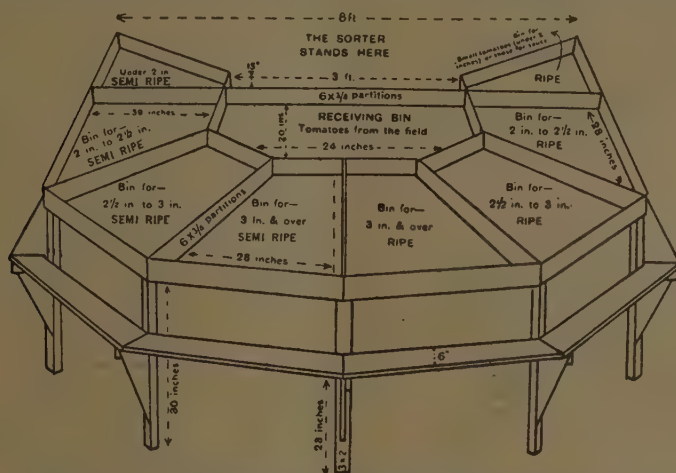
Slack packing bruises Tomatoes. Squeezing ruptures the cells inside, causing early breakdown.

Ripe. — Means that Tomatoes should be from two-thirds full colored.

Semi-Ripe. — Tomatoes should be from one-third full colored.

Branding. — Brand initials and surname, or registered brand; the locality of production; also the quality and size standard, such as — W. G. Thomas, Echuca, Semi-Ripe, 3 inches and over.

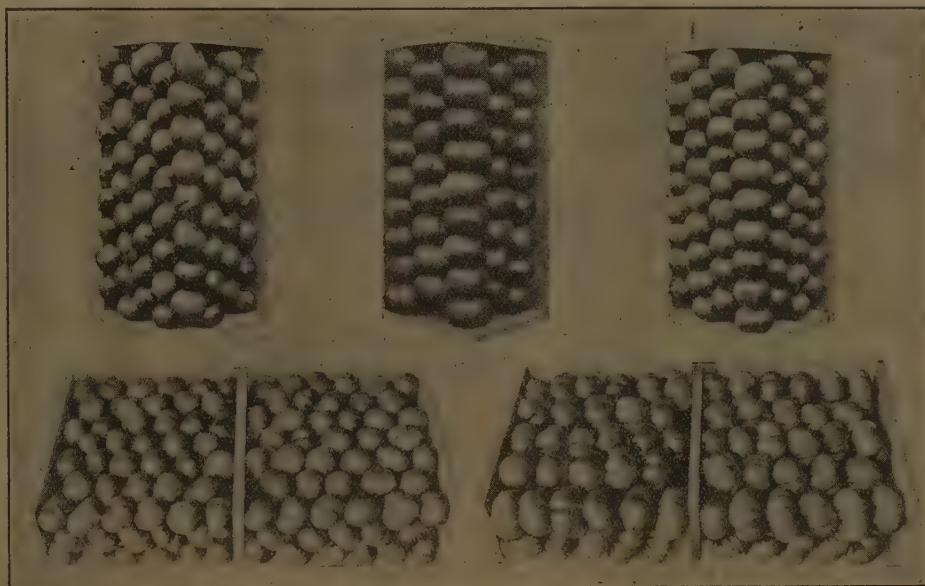
Charts II. and III. have been specially designed for Tomatoes packed in the "half-dump" case, the inside meas-



Sketch showing construction of and method of using a useful type and packing bench for Tomatoes.

Top row: Tomatoes packed in the "Half-dump" case. Left, the 3-2 pack, showing the 160 count; centre, the 2-1 pack, showing the 77 count; and right, the 2-2 pack, showing the 144 count.

Bottom row: Tomatoes packed in the "Long Bushel" case. Left, the 2-1 pack, showing the 232 count; and right, the 1-1 pack, showing the 110 count.



urements of which are 18 inches x 8-2/3 inches x 7 1/2 inches. Chart II. is for cases

made on the wide system, and Chart III. for cases made on the narrow system.

Chart I.—For Tomatoes in the "Long" Bushel Case.

(26 inches x 6 inches x 14 1/2 inches, inside measurements, clear of the division.)

Approx.

Size Ins.	Pack.	Layer.	Layers.	Total.	Remarks.
—	2-1	7 x 7	7	294	Angle pack.
2 1/2	2-1	7 x 6	7	274	Angle—small to medium 2 1/2 inches.
	2-1	6 x 6	7	252	Angle—medium to large 2 1/2 inches.
2 1/2	2-1	6 x 5	7	232	Angle—average 2 1/2 inches.
2 3/4	2-1	5 x 5	6	180	Angle—small to medium 2 3/4 inches.
	2-1	5 x 4	6	162	Angle—medium to large 2 3/4 inches.
3	2-1	4 x 4	6	144	Angle—average 3 inches. Pack more loosely than usual. Reverse the first two Tomatoes.
3 1/2	1-1	5 x 5	6	120	Angle—Average 3 1/2 inches. Pack more loosely than usual.
3 1/2	1-1	6 x 5	5	110	Angle—small to medium 3 1/2 inches.
	1-1	5 x 5	5	100	Angle—medium to large 3 1/2 inches.
3 3/4	2-1	3 x 3	5	90	Stylar to side—average 3 3/4 inches.

Chart II.—For "Half-Dump" Cases Made on the Wide System.

Approx.

Size Ins.	Pack.	Layer.	Layers.	Total.	Remarks.
—	3-2	9 x 9	4	180	
	3-2	9 x 8	4	170	
2 1/2	3-2	8 x 8	4	160	
	3-2	8 x 7	4	150	
2 1/2	3-2	7 x 7	4	140	
	2-2	9 x 9	4	144	Flat shape varieties.
	3-2	7 x 6	4	130	Pack more loosely than usual.
	2-2	9 x 8	4	136	Flat shapes. Pack more loosely.
	3-2	6 x 6	4	120	Pack more loosely than usual.
	2-2	8 x 7	4	120	Pack more loosely than usual.
	2-2	8 x 8	4	128	Flat shapes. Pack more loosely.
	2-2	7 x 7	4	112	Pack more loosely than usual.
2 3/4	2-2	7 x 6	4	104	Pack more loosely than usual.
	2-2	6 x 6	4	96	Pack more loosely than usual.
	2-2	8 x 8	3	96	Flat shape varieties.
	2-2	8 x 7	3	90	
	2-2	7 x 7	3	84	
3	2-2	7 x 6	3	78	
	2-1	9 x 8	3	77	Flat shape varieties.
	2-2	6 x 6	3	72	
	2-1	8 x 8	3	72	
3 1/2	2-1	8 x 7	3	68	
	2-1	7 x 7	3	63	Pack more loosely than usual.

Chart III.—For "Half-Dump" Cases Made on the Narrow System.

Approx.

Size Ins.	Pack.	Layer.	Layers.	Total.	Remarks.
—	3-2	7 x 6	6	195	Pack more loosely than usual.
	2-2	9 x 9	5	180	
	2-2	9 x 8	5	170	
2 1/2	2-2	8 x 8	5	160	
	2-2	8 x 7	5	150	
2 1/2	2-2	7 x 7	5	140	
	2-2	7 x 6	5	130	Pack more loosely than usual.
	2-2	6 x 6	5	120	Pack more loosely than usual.
	2-2	6 x 5	5	110	Pack more loosely than usual.
2 3/4	2-1	9 x 8	4	102	Pack more tightly than usual.
	2-1	8 x 8	4	96	
	2-1	8 x 7	4	90	
	2-1	7 x 7	4	84	
3	2-1	7 x 6	4	78	
	2-1	6 x 6	4	72	
3 1/2	2-1	6 x 5	4	66	Pack more loosely than usual.
	2-1	5 x 5	4	60	Pack more loosely than usual.
3 3/4	2-1	6 x 5	3	50	

A SYNTHETIC SOIL.

Experiments in Germany.

Vegetables, as well as Barley, Rye, and other grains, may soon be grown without soil if the experiments now being undertaken in Germany and England result in making the method of growing commercially practicable. Dr. Paul Spangenberg, of Lubeck, Germany, made the discovery that he could duplicate the nutrient content of soil in a chemical solution, which, if fed to the seed, with no soil, and very little water, will germinate the seed and cause it to yield up to five times more volume than similar seed planted in the ground.

Fodder actually produced in this manner is being fed to pigs and cattle, and it is stated that they are in better condition than stock fed on ordinary outdoor fodder.

On the principle of sprouted Oats, which are used extensively on poultry farms when green feed is not available, the method of planting soil-less seed is to have a series of trays or cabinets, so divided that the operator has a tray ready to "harvest" each day of the year, since the new indoor farming is not dependent upon weather conditions. Grain requires only about ten days to grow ready for harvesting, therefore, after one tray is cleaned up it is immediately

New Dwarf French Bean

ONCE SOWN "ACME" ALWAYS GROWN
FIVE GOOD REASONS WHY YOU SHOULD SOW "ACME."

1. Much earlier than other types.
2. Exceptionally prolific.
3. Great disease resister.
4. Produces a perfect long green Bean, ensuring TOP market prices.
5. Covers 60 per cent. more sowing space than equal quantity of Canadian Wonder.

2/6 PACKET.

Prices for Large Quantities Posted on Application.

ONE OF MANY TESTIMONIALS:

Dear Sir,—Regarding the trial carried out this midsummer with your Acme Bean, I am pleased to be able to inform you that the Acme showed out to even greater advantage than in the spring trial, when the yield over Canadian Wonder was just 3 to 1 on the first picking.

Planted early in December, with Pale Dunn and Canadian Wonder, in rows 45 feet long, the Acme gave 12 lbs. of splendid quality pods on the first pick, while the other two varieties named each gave 1 lb. of curled, unmarketable Beans. This may sound fabulous, but it is nevertheless a fact. It is difficult to raise Beans here in the midsummer. The Acme is easily the best summer Bean I have yet tried.

Yours faithfully, M.C.G.

LAW, SOMNER Pty. Ltd.

ESTABLISHED 1850
21-23 Elizabeth Street, Melbourne.
P.O. Box 1232, G.P.O., Melbourne.

supplied with fresh seed, and will be ready again in ten days' time.

Feeling that the theory of chemicalised spraying would solve the grain problem, experiments were undertaken with the growing of vegetables. Up to date, no satisfactory report has been announced, but the investigators have in mind the adaptation of the system so

that vegetables may be grown in the home, all the year round. We can picture the guest room being turned into a garden, and visitors being proudly shown Strawberries growing on a bare floor, and stately Cauliflowers adorning the fireplace, while the twins play hopscotch amongst the Tomatoes, if chemicalised synthetic soil is perfected.

TOMATO CULTURE.

The Koondrook and Barham District.

HIGH QUALITY TOMATOES for the early market are grown at Koondrook (Vic.) and at Barham (N.S.W.), just across the Murray from Koondrook.

Growers are organised into what is known as the Koondrook and Barham Tomato Growers' Association. The President is Mr. E. K. Bailey, and the Secretary, Mr. H. Beet.

Although Barham is in N.S.W., it is for all practical purposes classified under Victorian activities as the district is in direct touch with the Melbourne market.

The varieties of Tomatoes grown in this district are mainly Chinese Large Red and Yellow Top. The first mentioned is of the type of the Australian Large Red, but is earlier and of a tougher texture. Yellow Top is, if anything, a shade earlier than Chinese Large Red. The quantity of Tomatoes sent from this district to the Melbourne market annually is about 80,000 cases. Supplies commence about November 20, and thus catch the higher priced early trade. When the bulk lot of Tomatoes arrive from the main Victorian districts, the supplies from Koondrook and Barham cease. However, it is also possible in this favored district for the very late market too, when supplies from other centres are slackening off.

Tomatoes are grown on fresh land

each season. Blocks which are capable of being irrigated from the River Murray are opened for Tomato culture by local land owners.

This season a big effort towards standardisation is being made. Fruit is being delivered by growers to the local packing house in order that the sizing and packing can be done under supervision by trained packers.

For this purpose the local citrus packing house, fitted with a Lightning Grader, and all modern facilities, is being used. The shed manager is Mr. E. J. Eagle, with Mr. R. Forbes as assistant.

The long bushel case has been used to a considerable extent in the past; however, the recommendation from the Fruit Packing Instructor (Mr. Harris) is that the half dump case be adopted.

A visit of inspection among some of the growers was of great interest.

Mr. R. Beet has three acres under Tomatoes: in addition his two sons, members of the Young Farmers' Club, have an additional half acre. The varieties are mainly Chinese Large Red and Yellow Top. The Tomatoes are pruned to grow on two stems: they are not staked.

Near by are the Tomato fields of Mr. S. J. Hooper.

At the property of Mr. E. E. Mathers the soil, while capable of being worked to a fine tilth, was of a heavier nature than on some of the other places called at.

In addition to the two standard varieties, Mr. Mathers is trying out the new

Marhio variety, the fruit of which was noted to be round and smooth skinned: plants sturdy but crop not as heavy so far as the well known sorts.

On the area of three acres under Tomatoes, all the plants are staked, and evidences were abundant as to skill in cultivation: the rows run from east to west. From 600 to 700 bushel cases per acre are harvested. The plants are sprayed with arsenate of lead to check leaf-eating pests and with lime sulphur or Bordeaux to control fungus diseases.

In the packing shed a grading table has been erected (similar to the illustration on page 53). The fruit is delivered to the bench in a convenient position for the sorter to do the grading: on the left is placed all the semi-ripe fruit and on the right the ripe fruit. In placing the fruit to right or left it is put into compartments for sizes 2 in., 2 in. to 3 in., 3 in. and over.

Mr. W. Rowe was busy irrigating his 1½ acres of Tomatoes at the time of our visit: the water was delivered into furrows between the rows of Tomatoes: in the sandy loam the water quickly found its way into the ground.

Near by we noted Mr. and Mrs. Gregorace at work: the last mentioned is an active and capable gardener.

In the same area are several Italian Tomato cultivators—keen workers, but apparently living under somewhat primitive conditions.

Cultural Observations.

Great care is taken in seed selection to keep the strains true. Seed is sown in autumn in specially prepared seed beds: then in the early spring the seedlings are transferred to their growing positions—in pockets on sloping soil so that every night the pockets can be completely covered with wooden "slabs," i.e., pieces of board 8 ft. long by about 1 ft. wide. This is to protect against frost, the "slabs" are placed on nightly until the danger from frost is over.

CUT OUT AND MAIL

Any Instructions referring to this Order must be given in writing.

To the Proprietors of—

"FRUIT WORLD AND MARKET GROWER"

Over 30 Years' Service to Fruitgrowers.

78a Victoria Street, Melbourne - - - - - 439 Kent Street, Sydney

Please enter my/our name on your Subscribers' List and send me/us the Journal regularly as published, for which I/we agree to pay Subscription 6/- per annum (or 7/6 including "Fruit World Annual") and continue same until countermanded.

Dated



F. Chilton, Established 1894.
Fruit Commission Agent,
Licensed Under Farm Produce Agents' Act.
Highest Market Prices, Prompt Returns, Reliable
Advice.
Registered Address, for Telegrams and Cables—
"Chiltons."
City Fruit Markets, Sydney.

FRUITGROWERS!

For Satisfactory Results, Send Your Fruit to

F. H. G. Rogers

Fruit Selling Expert,
Municipal Markets, Sydney.

Shipping No. 83.

Established 1900.

Consign to...

J. G. R. BRYANT

Licensed Farm Produce Agent,
City Markets, Quay Street, Sydney.

Registered Office: Haymarket Chambers. P.O. Box 175 Haymarket

Bankers—Commercial Bank of Sydney,

Shipping No., All States, 250. Haymarket Branch.

Growers Obtain Top Prices by Consigning to:—

H. J. GREENTREE

(Est. 1920)

MUNICIPAL MARKETS, SYDNEY.

Shipping Nos.—Tasmania 228, Q'land & Victoria 40.

Phone: MA 1769.

MOSS & WOODWARD

Licensed Fruit and Produce Agents
(£2,000 Fidelity Bond.) City Fruit Markets.
Telegraphic Address, "Mosswood." Code, Bentley's.

SHIPPING NO. 205.

References—Bank of N.S.W., Haymarket
Phones—MA 2612 and X 2317. and Growers' Cheques.

Telephones:
MA 4432, Epping 840.

Est. 1895.
Bankers:
Bank of N.S.W., Haymarket.

H. BLACK & SON,

Licensed Farm Produce Agents,
17 City Markets, Sydney.
Consignments of Fruit, Tomatoes, and Other Produce
Received for Sale.
Cases Sent on Application.
Cash and Account Sales Rendered Weekly.

FRUIT GROWERS—Seeking Expert Salesmanship,
Satisfactory Results and Prompt Returns.

CONSIGN YOUR FRUIT TO

L. SMITH

Licensed Farm Produce Agents,

Bank References: Commercial Bank, Elizabeth Street
and N.S.W. Fruitgrowers.

Shipping No. 235. Phone: M 3045

Telephone MA 3846.

Established 1900.

W. MUSGROVE & SON

Licensed Farm Produce Agents,
8 City Fruit Markets, Sydney.
Our Motto—Quick Sales and Prompt Settlements.

Forwarding Numbers:

Tasmania, Victoria, S. Australia, No. 53.
Queensland, Northern Rivers, No. 18.

GROWERS!—Consign your Fruit to:—

JAMES SLATER

21 CITY MARKETS, SYDNEY

Postal Address: Box 36, Haymarket P.O., Sydney.
Established 1882.

SHIPPING NO. 19. 88 VIC. & TAS.

Stencils, Advice Notes, etc., on Application

Associated Growers' Selling Agency

Licensed Farm Produce Agents.

CITY MUNICIPAL MARKETS.

Manager: BRUCE R. SMITH.
Reliable Service, Prompt Advice and Returns.

Highest Selling Rates.

Phone: MA 1828.

MACDERMOTT AND SHEEDY

Licensed Farm Produce Agents

City Municipal Markets, SYDNEY.

Postal Address: P.O. Box 75, Haymarket.

Efficient and Prompt
Service, Reliable Advice

Forwarding Numbers:—

Tasmania; Victoria, South Australia No. 63.
Queensland No. 61.

Agencies: LONDON and HULL. Consignments Arranged.

References Bank of N.S.W., Castlereagh St., Sydney

PHONE: MA. 1363

Telegraphic Address—"Citrus" Sydney.

Australian and New Zealand Fruit Trade

Market Notes and News — Prices, etc.

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, REPORTERS.

Advertising in this Journal.

NEW SOUTH WALES.

Sydney:

CITY FRUIT MARKETS.

Associated Growers' Selling Agency Ltd.
Black, H., & Son.
Bryant, J. G. R.
Chilton, F.
Greentree, H. J.

Holmes, J.
Maddermott & Sheedy.
Moss & Woodward.
Mugrove, W., & Son.
Rogers, F. H. G.
Slater, Jas.
Smith, L.

VICTORIA.

Melbourne:

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Pty. Ltd., Wholesale Fruit Market.
Mills, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Pang & Co. Ltd., H. Louey, Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Pitt, A. E.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Oon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Vear, F. W., Pty. Ltd.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

Brisbane: QUEENSLAND.

Barr, A. S., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Jacklyn & Jacklyn.
Robsons Ltd., Fruit Exchange.

Hobart:

TASMANIA.

Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
E. R. Cottler Pty. Ltd., Temple Place, Macquarie Street.
Jones, H. Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston:

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

Dunedin:

NEW ZEALAND.

Co-operative Fruitgrowers of Otago Ltd.

Hull:

GREAT BRITAIN.

London and North-Eastern Railway, 7 Bridge-street, Sydney, N.S.W.

London:

Monro, Geo. Ltd., Covent Garden.
Port of London (Capt. A. W. Pearce, 10 Bligh St., Sydney).
Poupart, T. J. Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.

Manchester:

The Port of Manchester Rep., W. J. Wade, 8 Bridge-street, Sydney.

Bremen:

GERMANY.

Fruchthandel, Gesellschaft.

Hamburg:

Ascheimer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
Luiten, J. H., & Sohn, Hamburg.
Stier, Aug., Fruchthof.
Timm & Gerstenkorn.

MARKET NOTES.

VICTORIA.

Market Notes for December.

The Christmas season created a slight increase in the movement of fruit and vegetables, but not nearly as much as the trade would have liked. The first three weeks in December were quite normal, weather conditions militating against any extreme buying. On the whole, there was no shortage of supplies, and prices in general firmed for quality goods. The retail merchants reported Christmas as no better than 1933, but, on the whole, business was satisfactory, especially in vegetables, just preceding the holidays.

Berries fluctuated, and were generally of good quality; prices maintained their margin of the early part of the month, supplies being plentiful.

Citrus. Good-keeping fruits were in demand, and prices were fair for the weather experienced during the month.

Grapefruit firmed for keeping grades, and a few Californian offerings received good prices.

Figs. The first crop appeared towards the end of the month, and were opened in fair order, selling well.

Cherries. Supplies improved during the week before Christmas, and brought good prices, but the demand dropped during the holidays. Keeping quality was poor in local supplies, the South Australian and N.S.W. Cherries being much better and returning comparatively good prices.

Stone Fruits. Brown rot affected the Peach supply, and large fruit was scarce. Small grades plentiful, but prices low. Up-country grown Peaches were almost unsaleable, but locally grown gave fair returns. Apricot supplies equalled the Christmas demand,

and good samples brought satisfactory prices. Plums were short. Santa Rosa marketed well, but 4/- to 5/- was the general price for other varieties.

Bananas. Supplies were firm, prices satisfactory, but fluctuated and dropped towards the end of the month.

Apples. Old stocks are cleaning up satisfactorily, but no great movement is reported. Prices were normal, the best sales being for Yates about 6/- to 7/6. A very small showing of Williams Favorite were seen in the last week. Dependent upon good weather, some new season cookers should show up in January.

Tomatoes. Reasonably good. Supplies and prices satisfactory, but eased off a little after Christmas. Kerang made heavy shipments by special train just before the holidays, and realised interesting returns.

Peas and Beans were light for Christmas, and brought good prices, though the quality was generally poor, owing to unusual weather conditions. Prices should remain firm for January.

Potatoes. Prices jumped towards the end of the month, and returned the high-



Cable Address: DAVIS, MELBOURNE.

Code: "ABC," 4th and 5th Editions.

Box, G.P.O. 148B.

J. DAVIS PTY. LTD., Fruit Merchants

8 WHOLESALE FRUIT MARKET

Consignments solicited.

One Trial Invited.

Best Prices obtained.

Prompt Advice and Payment.

Telephone, F 3232.

Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Silbert, Sharp & Davies
Pty. Ltd.

FRUIT MERCHANTS

17 Wholesale Fruit Market

'Phone: F 2287.

G. Lister Pty. Ltd.

WHOLESALE FRUIT SALESMEN

12 Wholesale Fruit Market

Bankers: Commercial Banking Co. of Sydney
For Reference: ASK ANYONE

A. Millis & Sons

34 Wholesale Fruit Market

EXPORTERS AND IMPORTERS

Specialty—Prompt Returns. Cheques every
Wednesday. 'Phone, F 1862.

N. N. McLEAN PTY. LTD.
60 Wholesale Fruit Market

Growers Agents and Exporters

Manufacturers of "PLANE" Brand
Chemical Dusts.

G. Woolf

29-30 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT
& COMMISSION AGENT

Telephone F 5550.

Bell, Banson Pty. Ltd.

Wholesale Fruit Merchants,
20 WHOLESALE FRUIT MARKET, MELB.CONSIGNMENTS OF FRUIT AND
VEGETABLES SOLICITED.
Telephone: F1023; Private JW2528.
Bankers: E.S. & A. Bank,
Market Branch.

T. Stott & Sons

FRUIT MERCHANTS

ESTABLISHED 1852.

26 Wholesale Fruit Market, Melbourne. And at VICTORIA MARKETS.

COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.

CONSIGNMENTS SOLICITED.
PHONE: F 4370.

PROMPT SETTLEMENTS.

SHIPPING No. 41.
Bankers: Bank of Australasia, Melbourne.

F. CAVE & CO. Pty. Ltd.

PHONE: F 3930

Telegrams "CAVECOFRUT"

F. CAVE, Managing Director

Wholesale Fruit Merchants and Commission
Agents — Exporters of Fresh Fruit

9 WHOLESALE FRUIT MARKET

Bankers: National Bank
Western Branch, Melb.CONSIGNMENTS
SOLICITED.

J. W. Ross

13 Wholesale Fruit Market

WHOLESALE FRUIT MERCHANT

Prompt Returns and Sale Notes Daily.

Tel., F 2426.

Box 417
G.P.O.

J. H. Young & Co. Pty. Ltd.

(R. GORDON, MANAGING DIRECTOR)

Phone
F 2098

GROWERS AGENTS

32 Wholesale Fruit Market
MELBOURNEBankers:
E.S. and A. Bank
William Street, Melbourne.

HIGHEST PRICES

and

PROMPT RETURNS

SHIPPING NO. 48

"WE STRIVE TO PLEASE"

est values since 1929. Affected by flood conditions in the Gippsland districts and by the crops near Melbourne being light, £14 per ton was realised after the Christmas rush. It is estimated that supplies will be low for some time, and prices relatively higher than at this season last year.

VICTORIA.

Melbourne (31/12/34).—Prices quoted by the Wholesale Fruit Merchants' Association, were as follow:—Per case: Apples, eating, 4/- to 6/-; few selected varieties, 8/- to 9/-, do., cooking, 3/6 to 6/-; Apricots, 4/- to 7/-; few special higher; Bananas (per double case), green, 8's and 9's, 11/- to 12/-, few higher; 6's and 7's, 8/- to 10/-; Cherry Plums, 1/- to 2/- case; Cucumbers, 4/- to 5/- bush; Grapefruit, 7/- to 12/-; specially selected, 16/-; Lemons, 3/- to 5/-; Val., 4/- to 11/-, special higher; Passionfruit, 7/- to 9/-, few special higher a case; Pineapples, 9/- to 14/- double case, few special higher, poor lower; Papaws, 8/- to 10/- double case; Peaches, 2/- to 5/-, few special higher, case; Tomatoes, local, 4/- to 7/-, special higher; Mangoes, 8/- to 10/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports that sales on Saturday were as follow:—Vals., average standards, 75-84, 6/-; 96-112, 7/-; 126-154, 8/-, a few to 9/-; 168, 7/6; 182, 7/-; 196, 6/-; 220, 5/6; 248, 5/-; 270, 4/-. Good M.I.A., to 9/-, best counts, a few 10/-; selected standards, 8/- to 10/-; a few 11/-; specially selected, 9/- to 12/-, a few 13/- Grapefruit, average standards, 60-75, to 10/-; large, from 7/-; selected, to 11/- and 12/-, best counts; specially selected, to 16/-. Lemons, average standards, 4/- to 6/-, best counts, a few 7/-; large and small, 3/-.

NEW SOUTH WALES.

Writing under date December 27, Mr. P. S. Macdermott states as follows:—

Apple crops throughout N.S.W. are, on the whole, very good, and provided we do not get any hail and that the moth and spot do not get active, there should be a fair quantity of fruit for export.

During the past few years we have run up against so many troubles that one does not like to forecast very far ahead.

Trading during December was handicapped by the remarkably unseasonable weather. For the first half of the month cold conditions prevailed, the average daily temperature from the 1st to the 11th of December being the coldest on record for the State of N.S.W. This naturally affected the demand for all varieties of fruit and also Cucumbers and Tomatoes.

More seasonable weather was experienced for the latter half of the month, and sales improved considerably.

Enquiry from merchants engaged in country order and shipping trade was better than for many years past, and the purchasing power of this section meant an increase in prices for practically all varieties of fruit during the week preceding the Christmas holidays.

With the falling off in demand from this source during the last week, values came back.

Enquiry, although better than in 1933, from retailers was disappointing in comparison with the improvement in other trades during the festive season.

Sydney (24/12/34).—The market representative of the Fruitgrowers' Federation of N.S.W. reports as follows:—Apples (standard and special):—New season: Mobbs Codlin and Lord Nelson, 3/- to 8/-; Carrington, 5/- to 7/-, few higher, small almost unsaleable; Christmas Kitchen, 10/- to 12/-. Few 1934 G. Smith to 20/-; Del., to 22/-; Tasmania: Few Demo., to 10/- Pears:—Few Broome Park, to 11/-; Jos., to 14/-. Comments on the Apple and Pear position: 1,700 cases arriving from Tas. to-day. New season Apples are plentiful and small

sizes have been almost unsaleable. Pears: These are practically finished.

Apricots.—Local, 2/- to 4/- half; inland, 3/- to 4/6, few 5/6 half; inland supplies have been larger than usual and prices eased.

Bananas, N.S.W. and Queensland, all sizes, 11/- to 12/-, few higher, trop. cases. Arrivals for the week total 20,066 cases, inclusive of 356 from Queensland. In consequence, prices have not improved, and sudden weather changes affecting some fruit in transport, have resulted in a quantity of over-ripe fruit.

Cherries (per quarter). — Orange, Margaret, 2/- to 4/-; varieties: Napoleons, 1/6 to 2/6; Florence, 1/6 to 3/-; factory price, 2/- to 2/6. Young supplies have finished. Orange deliveries to-day were heavy and fruit is being released at very low figures.

Citrus Fruits: Grapefruit, N.S.W. (few only), 10/- to 20/- bush. Lemons (N.S.W.), special and standard: Local (140 to 216), 4/- to 7/-; inland (140 to 216), 5/- to 7/-; cured (140 to 216), 5/- to 8/-, few 10/-; Vic., 5/- to 8/- Valencias (local and inland): (Counts): 88 to 125, 138 to 150, 163 and smaller: (standard), 5/- to 6/- bush., 4/6 to 5/6, 2/6 to 4/-; (special): 6/- to 7/- bush., 5/- to 6/-, 3/6 to 4/6. Comments on the citrus position:—Lemons: Sound Lemons are very scarce and most sales are around 5/- to 7/-, with a few special cured to 10/-. Vals.: This market was particularly good until Thursday owing to country order requirements. Supplies also have been light, but the last few days increased considerably and prices slumped.

Figs (N.S.W.): 5/- to 7/- quarter. Gooseberries, N.S.W., 2/- to 3/6 quarter; Tas., 1/- to 2/6 half. Grapes (Qld.): Black Hamburg, 16/- to 18/- half. The first consignment of the season arrived from Qld. Mangoes, Apple, 9/- to 12/-, few higher bush. Nectarines (N.S.W.), 4/- to 7/-, few 8/- half. Passionfruit (N.S.W.), North Coast, 12/- to 15/-, few 18/- half; Qld., 12/- to 15/-, few 18/-

F. CHILTON

ESTABLISHED 1894

FRUIT COMMISSION AGENT

Licensed under Farm Produce Agents Act

Highest Market Prices

Prompt Returns

Reliable Advice

Registered Address for Telegrams and Cables,
"CHILTONS"

References:—Bank of N.S.W., Haymarket, Sydney
and Growers throughout Australia

CITY FRUIT MARKETS, SYDNEY

half. A few are arriving from the North Coast and Queensland, and 18/- to 20/- was paid by country order buyers early in the week. Peaches, most sales, 2/6 to 4/6, few spec., 6/- to 7/-; inland, 3/- to 4/-, few to 6/-. Plums, most sales, 2/- to 3/6 half; Santa Rosa, Wilson and Fisher, special sizes, 5/- to 7/- half. Santa Rosa and Wilson varieties comprise the chief arrivals. Papaws, 10/- to 14/- trop. case. Pineapples, Qld., Ripley, 6/- to 9/- trop. case; Queen, counts large, 10/- to 11/-; counts 18 to 21, 11/- to 12/-; small, 7/- to 10/-. Strawberries, N.S.W., 6/- to 15/- doz. punnets. Tomatoes, N.S.W., metropolitan, North Coast, repacked, 2/- to 4/6, few 6/- half. This market recovered, choice metropolitan colored selling at 8/- and 9/-, but the cool change has again depressed prices. North Coast fruit is appearing very soft in some instances.

QUEENSLAND.

Brisbane (17/12/34). — Messrs. Robsons Pty. Ltd., report as follows:— Choice Vic. Yates that are coming to hand are meeting with a keen demand, halves selling to 11/6 and three-eighths to 10/-. All choice colored Apples of popular sizes are realising in the vicinity of 11/-. Stanthorpe cookers are now appearing on the market, those coming forward are realising to 11/- per case for good quality.

Orange rates have not altered during the past few weeks, good counts selling to 8/6.

Stanthorpe stone fruits are now well represented, choice Wilson Plums selling to 8/6, Peaches to 7/-, Apricots and Cherries to 8/-.

Beans and Peas from the same district

are selling well, the former realising to 9/- per sugar bag, and Peas to 10/- for the same quantity.

North Queensland Rough Leaf Pines are meeting with ready sales, quality fruit selling to 12/- per case.

Mango sales have been brisker this week, choice fruit that is arriving in a sound and clean condition realising up to 9/- per case.

Brisbane (28/12/34). — Cases: Caven-dish: Nambour, FWK, 11/- to 9/-; JMC, 6/9 to 5/-; Yandina, WB, 9/6 and 8/6; Mooloolah, CWR, 8/6 to 6/-; CR, 6/6 and 6/3; AZ, 6/6 and 5/9; Landsborough, NAR, 8/6 and 6/6; Gympie, AS, 8/3 to 5/9; GG, 7/- and 6/-; Mudgeeraba, PB, 7/9 to 5/-; West Burleigh, AK, 7/- to 6/-; Brookfield, CLB, 7/- and 5/9; Traveston, RWK, 6/9 to 5/9; AK, 4/9 and 4/-; Alberton, JR., 5/- to 3/6; Day-

Wholesale Fruit Market

MELBOURNE



Tim Young & Co. Pty. Ltd.

WHOLESALE FRUIT MERCHANTS

18 Wholesale Fruit Market

Growers can be assured of receiving the very best service and prompt returns,

Cable Address "TIYOUNG"

A.B.C. Code, 5th Edition.
Box 28a G.P.O., Melbourne.

TELEPHONE, F 4321

Bankers:
E. S. & A. Bank Ltd.,
Melbourne—225 Swanston Street.

Stencil or Labels on application.

CONSIGN YOUR FRUIT TO

R. A. Wing & Co.

WHOLESALE FRUIT AND PRODUCE
COMMISSION AGENTS,
No. 37 Wholesale Fruit Market,
Melbourne.

Branches 141 Little Bourke Street
and Victoria Market.

TELEPHONE: F 1744.

CONSIGNMENTS OF FRUIT AND
VEGETABLES

Assured Highest Market Rates.

P. A. Patrikeos

36 Wholesale Fruit Market
Melbourne

Telephone: F 2227.

H. M. WADE & CO.

Fruit Commission Agents

No. 21 Wholesale Fruit
Market, Melbourne

Prompt Advances and Account
Sales

Phone: F 4866

A. E. PITT

Member of Wholesale Fruit
Merchants' Association of Vic.
Established 1893.

18 WHOLESALE FRUIT
MARKET, MELBOURNE.

Consignments Solicited from all
States.

Growers Will Receive Top
Market Value and Prompt Returns
Fidelity Bond Guarantee for
£1,000.

Reference—E. S. & A. Bank,
Elizabeth St. Branch, Melbourne.
Phone: F 5035.

H. LOUEY PANG & CO. PTY. LTD.

FRUIT AND PRODUCE MERCHANTS

No. 4 WHOLESALE FRUIT MARKET, MELBOURNE

(Also at 172 Little Bourke Street) G.P.O. Box No. 795, Melbourne.
References—E. S. & A. Bank, 225 Swanston St., Melbourne.

GOOD PRICES ASSURED

Cheques Sent Promptly.

H. & S. FRANKEL

(Established 35 Years)

No. 44, WHOLESALE FRUIT
MARKET, MELBOURNE.

Growers in all States are invited to
send consignments. Highest market
rates and prompt settlements.

Telephone: Store F4874;
Bankers: Private F1555 & F8711.
Commonwealth Bank of Australia.
£500 Fidelity Bond Guarantee.

boro, D, 5/- and 4/9; Woodford, AH, 3/-; cases, Lady Fingers: Traveston, AK, 9/-. Pineapples: Smoothleaf, cases, 3/- to 9/-; roughleaf, 5/- to 7/6; Lemons, local, 10/- to 14/-; Gayndah, 12/- to 16/- case; Oranges, 6/- to 9/-; Apricots, 6/- to 7/-; few large, 8/-, small, 3/- to 5/-; Peaches, Wigans, 3/6 to 5/-; others, 2/- to 4/-; Nectarines, 2/- to 4/- $\frac{1}{2}$ bush. case, few 5/-; Stanthorpe cooking Apples, 4/- to 8/- bush.; few, 9/-; dessert, 5/- to 10/-; Plums, Wilson 4/- to 6/- case; Santa Rosa and Early Jewel, 3/6 to 6/-; others, 2/6 to 4/-; Passionfruit, 3/6 to 6/-; Mangoes, 1/- to 6/- case; special, 7/- to 9/-; Papaws, 2/- to 4/- bush. case; special, 4/6; Cherries, 5/- to 8/-; few, 9/- a tray. Imported fruit: Apples, Dem., 10/- to 13/-; FC, colored, 3/- to 6/-; green, 8/- to 12/-; Yates, large, 8/- to 12/-; Small, 3/- to 6/-; Plums, 3/- to 7/-; Apricots, 3/- to 9/-; Vic., Lemons, 12/- to 15/-.

consignments of Raspberries during the next few days. The same applies to black and red Currants; Strawberries, unfortunately almost over for the season. Cherries, owing to the hot weather, are not keeping, and prices are much lower than those ruling last year. Supplies of Tomatoes have been short of requirements, with the result that prices have advanced from 8d. to 1/6 per lb. Choice ripe Gooseberries in bottles command attention and bottling fruit is rather cheap. Apples have realised satisfactory prices, being on a par with those ruling during the last fortnight. Early consignments of new season's Apples are eagerly inquired for—Beauty of Bath, Lady of the Snows, Irish Peach, and other dessert varieties will command good prices. Cooking Apples such as Lord Suffield are eagerly inquired for. Our first consignment of Honey Pears met a keen demand. Ample supplies of citrus fruit are still available. Lemons from the North and American Lemons and Oranges from Jamaica are finding a steady demand at payable prices. Niue and Samoan Bananas arrived in perfect condition, Niues realising from 23/- to 25/- and Samoans from 26/- to 28/- per case. At the moment the demand is for choice dessert fruits.

Prices: Bushel and American Cases—Apples, choice Del. 7/-, 9/-; Sturmers 6/-, 9/-; Tasmans 7/-, 9/-; R. Beauty 7/-; Lord Wolseleys 6/-; inferior unsaleable. Cherry Plums, ripe 4/-, green 3/-, 4/- per 20 lb. case; Jamaican Oranges 32/6, 37/6. Grapefruit 37/6. Bananas, ripe Nieves 27/6. Cal. Lemons 60/- N.Z. Lemons, 1st grade 10/-, 12/- Half cases: Peaches 3/6, 5/-; Apricots 4/6, 6/-; Pears 5/9.

THE LONDON APPLE MARKET.

The latest reports from London, released by the Imperial Economic Committee, state that supplies in November of Apples from Canada were less than half of the quantity of the corresponding period of last year, and that Pears from Canada and U.S.A. were more than half below the 1933 supplies. Similarly, shipments direct and transshipments to

the Continent were lighter than a year ago.

A brief comparative table (with 1933 in brackets) compiled for week ending November 21, 1934, discloses the position as follows:—

Canadian Apples to U.K. — Boxes: (146,000) 66,000; barrels: (83,000) 33,000.

U.S.A. Apples to U.K.—Boxes: (32,000) 41,000; barrels: (10,000) 19,000.

Apples to Continental ports. — Boxes: (48,000) 12,000; barrels: (71,000) 6,000.

PORT OF LONDON.

Season's Greetings by Air Mail.

Sir David Owen, general manager of the Port of London Authority, writes to Captain Pearse, the Australian representative of the Port by the first air mail, as follows:—"The inauguration of a direct air mail service between London and Australia is a reminder of the importance of the trade existing between

RIDLEY & HOULDING

Covent Garden Market, LONDON

Specialists in Australian Fruit.

Solicit consignments of Apples, Pears, Etc.

Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.

REPRESENTATIVES—

International Fruit & Mercantile Company Ltd., Melb., Vic., Australia; Pitts & Lehman, 129 Pitt St., Sydney, N.S.W.; and A. J. Walshe & Co., Hobart, Tasmania.

WESTERN AUSTRALIA.

Perth (21/12/34). — Apples: Yates, dumps, 2½ in. 10/- to 13/6; 2½ in., 10/6 to 15/6; G. Smith, 12/- to 16/6. Citrus: Vals., flats, 3/6 to 5/6 (special to 11/-); Lemons, flats, 9d. to 3/6 (special to 5/6). Other lines: Apricots, flats, 4/- to 10/6 (special to 13/9); Peaches, 4/- to 11/- (special to 14/-); Tomatoes, 5/- to 10/6 (special to 15/-, inferior from 2/-); Plums, Santa Rosa, 7/- to 9/- (special to 12/6); Shiro, 3/6 to 9/- (special to 12/); Cherry, 2/- to 5/6; Beauty, to 14/-; Grapes, 4/- to 7/6; Strawberries, 5/- to 12/6 a doz. punnets (special 16/-).

NEW ZEALAND.

Dunedin (22/12/34). — Messrs. Reilly's Central Produce Mart Ltd., report as follows:—Nice consignments of fruit arriving. Some very fine crate Peaches and Apricots arriving and meeting a keen inquiry. Raspberries are coming to hand freely. We anticipate heavy

Reilly's Central Produce Mart Ltd.

Queen's Warehouse,
MORAY PLACE, DUNEDIN, N.Z.

IMPORTERS AND EXPORTERS
OF FRUIT AND PRODUCE.

Correspondence Invited.

Cables:
Reillys, Dunedin.

Codes:
Bentley's.

Herbert Wilson

Pty. Ltd.

Wholesale Fruit Merchants

and
Commission Agents

Nos. 1 and 10 Wholesale Fruit Market
Melbourne.

Accredited Agents for Victorian
Central Citrus Association and
Affiliated Association.

Bankers:
National Bank of
Australasia.

(Western Branch)
Melbourne. |

City Telephone
F6444.

Private 'Phone
M3655.

the Port of London and the Commonwealth of Australia. The first air mail by this new service arrives in Australia at a time when thoughts turn to those overseas, and the Port of London Authority take this opportunity to express through you their best wishes and Season's Greetings to all those whose business is connected directly or indirectly with the Port of London.

At a meeting of the Koondrook and Barham Tomato Growers' Association on December 5, 1934, Mr. E. K. Bailey presiding, the "Fruit World and Market Grower" was appointed the Association's official organ.

"What kind of a young man was that fellow I saw you with last night, Doris?"
"A spend-thrift, with emphasis on the 'thrift.' Why, pound notes slipped through his fingers like fly-papers."

BANANAS FROM FIJI.

The recent removal of the sales tax from Fijian Bananas entering Australia has excited much opposition from Banana growers. This proclamation announced in December, removes the prime duty from Fijian Bananas as from December 14, said to be in conformity with the Ottawa Agreement. It results in a quota of 40,000 cents per annum being accorded to Fiji and means that their Bananas can now enter Australia at 2/6 per cental. Sir Henry Gullett, (Minister Directing Trade Treaties) assured the House that the quota of 40,000 cents would not be increased while the present Government is in office. He also claimed that the concession was trifling since Australia sold to Fiji ten times as much as she bought from her, and Australian primary products sold to Fiji were four times more in value than the Bananas Australia accepted, in any case the Fiji quota was only 2½ per cent. of Australia's consumption, therefore the

outcry against the remission of the sales tax was unwarranted.

During the discussion on the Fiji question, Sir Henry Gullett said that unless Australia seriously considered the utilising of her surplus products, there would be some very lean years ahead for producers. He was sure that the Council for Scientific and Industrial Research would gladly co-operate in investigations for the dried treatment of Bananas.

AUSTRALIAN DRIED FRUITS SALES IN GREAT BRITAIN.

The Chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas) advises that the sales of Australian dried fruits in Great Britain for the fortnight ending December 20, amounted to 833 tons.

The average price obtained for 580 tons of Sultanas was £36/1/10, whilst 191 tons of Currants sold at an average of £27/9/8 per ton.

APPLE AND PEAR EXPORTS.

Australia, and N.Z. to Send 4,500,000 Cases of Apples to U.K.

It is estimated that the export of Apples from Australia to U.K. will this season be around 3,500,000 cases, and from New Zealand 1,000,000 cases.

These totals do not include February shipments nor shipments to the Continent.

The quantity of Pears to be exported is likely to be between 500,000 and 600,000 cases.

Arrangements are being made through the Australian Apple and Pear Export Association, with the Overseas Shipping Representatives' Association, for a well-spread season to feed the market with normal requirements.

The close co-operation between the Australian Apple and Pear Export Council, the New Zealand Export Control Board, the shipping companies, and the British fruit trade organisations is to be commended.

**Do not run any Financial Risk with your Fruit
but Consign it to**

HEDLEY GEEVES PTY. LIMITED

Telegraphic Address:
"Apples, Brisbane."

(Hedley Geeves, Managing Director)

Registered Shipping No. 6.

FRUIT EXCHANGE ——— BRISBANE**SELECTED AGENTS FOR:**

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd.
Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd.
Batlow Packing House Co-op. Soc. Ltd.

Highest Prices.

Prompt Returns.

A. S. BARR

**FRUIT EXCHANGE, BRISBANE,
QUEENSLAND.**

*Wholesale Fruit Merchant
and Growers' Agent.*

A Trial Solicited. Returns Speak for Themselves.
Established 1888. Shipping No. 19.
Registered Telegraphic Address: "Barr, Brisbane."

ROBSONS LIMITED

(Wm. Robson, Managing Director)

Guarantee satisfaction to Clients. Send us a
trial consignment.

FRUIT EXCHANGE, BRISBANE, Qld.

Account Sales and Cheques sent promptly.

Shipping No. 28.

**NORTHWEST
FRUIT GROWER**

"The Authoritative Magazine of the Deciduous Fruit Industry"

Published in Wenatchee, Washington,
"the Apple Capital of the World."

Latest and most authentic information on Spraying,
Fertilising, Fruit Cleaning, and all other phases
of productive fruit growing.

Subscription Rates—Foreign, 3 dollars per year;
5 dollars for two years.

Northwest Fruit Grower

132 So. Mission St., Wenatchee, Washington, U.S.A.

Best Efforts for Good Returns.

Jacklyn & Jacklyn

**Fruit Exchange, Brisbane
Queensland**

Wholesale Fruit Merchants & Growers' Agents

J. H. Jacklyn, Sen., has had 40 years' experience in
the fruit trade.

A Trial Solicited.

Shipping No. 36.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

At the monthly meeting of the Executive of the S.A. F.M.A., held at Adelaide, on December 21, 1934, the following were present:—Messrs. H. J. Bishop (chairman), G. A. W. Pope, P. R. B. Searcy, A. O. Peterson, F. F. Redden, J. S. Hammet, D. W. Hannaford, R. O. Knappstein, D. Norsworthy, E. S. Mason, R. B. Pritchard, J. B. Randell, H. N. Wicks, and the secretary (E. W. Mills).

Apple and Pear Export. Mr. J. B. Randell gave a full report on the proceedings at the recent conference, and advised that for the 1935 forecast, the final allocation for South Australia was 235,000 cases for the United Kingdom, and a further 65,000 cases for February and Continental shipments, which would bring the total up to 300,000 cases.

Other matters dealt with at the conference were: Report on the recent delegation from the Apple and Pear Export Council, Interstate Organisation and Local Markets, Compensation re Working Over Varieties Unsuitable for Export, Grant for Research Work, and address by J. S. Wilson, Imperial Chemical Industries, and at the conclusion of the conference a deputation was arranged to wait on Sir Henry Gullett to discuss the question of trade with Germany.

Mr. Bishop stated that he had made it quite clear that on account of the short season, the allocation of 300,000 cases for South Australia was not to be taken as a precedent for future years.

Both delegates expressed great appreciation of the address given by Mr. Wilson, and it was resolved that an invitation be sent through Mr. Boardman to Dr. Callan, asking him to visit Adelaide.

A hearty vote of thanks was passed to the delegates for attending the conference and for their exhaustive report of the proceedings.

Hearty appreciation was expressed to Mr. H. N. Wicks for the moving picture display of the fruit industry, which it was considered would do much good when displayed overseas.

Responding, Mr. Wicks thanked members, and pointed out it was entirely a Produce Export Department production.

Took His Place.

A Scotsman holding an important job in the city was always being twitted by an English friend about his nationality. By a curious chance the two met on a holiday.

"Hallo," chaffed the Englishman, "how on earth is your office managing to get on without you?"

"Fairly well," answered the Scot, cautiously. "You see, I left two Englishmen and four Welshmen in my place."

Victorian Fruit Marketing Association

The monthly meeting of the Executive of the Victorian Fruit Marketing Association was held at the Board Room, Commercial Travellers' Association, on Friday, December 7, 1934, Mr. G. W. Brown presiding.

There were also present:—Messrs. A. S. Harrison, W. P. Hutchinson, J. B. Mills, K. Eagle, G. Douglas, J. Barker, J. W. Bailey, W. H. Carne, J. J. Tully, F. Moore, C. J. Parnham, F. R. Mellor, F. M. Read and E. Meeking (Department of Agriculture), and the Secretary, R. E. Boardman.

Apology received from Mr. Jost.

Mr. F. Pyke was also in attendance on behalf of the Southern Fruitgrowers' Association.

Apple and Pear Export: In answer to Mr. Eagle, Mr. Brown stated that the raising of the duties on fruit entering England had been deferred. Canada, which agreed to reduce export by 50 per cent., had done better by reducing to the extent of 59 per cent. Their export list of Apple varieties had been reduced by 106. Pressure was being brought to bear to secure a later date for the imposition of duty on fruit entering Sweden.

Co-operation with New Zealand: Mr. Mills reported that the delegation to New Zealand had been successful in bringing about a mutual reduction of

SPECIAL NOTICE TO FRUITGROWERS

All Members
under
Fidelity Bond

In response to numerous requests from growers for information as to who are members of the **Wholesale Fruit Merchants' Association of Victoria** the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESIS.

T. STOTT & SONS (26).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
J. H. YOUNG & CO. PTY. LTD. (32).
H. M. WADE & CO. (21).

DAVID SMITH PTY. LTD. (3).
SILBERT, SHARP & DAVIES PTY. LTD. (17).
W. A. WATKINS (5).
P. A. PATRIKEOS (36).
G. WOOLF & SONS (29-30).
F. CAVE & CO. PTY. LTD. (9).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).
HERBERT WILSON PTY. LTD. (10).
FRANK BOOTH & SONS PTY. LTD. (16).
GEO. LISTER PTY. LTD. (12).
TIM YOUNG & CO. PTY. LTD. (18).
F. W. VEAR PTY. LTD. (28).

GROWERS PROTECT YOURSELVES by consigning to members of the **WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.**

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 21 Wholesale Fruit Market,
Queen Street, Melbourne. Phone F 4866.

Apples for export—i.e., the acceptance of a joint figure which was deemed to be wise to send to U.K.

Mr. Mills referred to the efforts of the Council to come to an agreement with New Zealand last season, and to the practical difficulties in arriving at a decision because of the difference between the New Zealand and Australian grades. Now color grading had been adopted in Australia and a mutual basis for negotiation was possible.

Other matters arranged were for joint advertising to secure greater efficiency, also for the establishment in London of facilities for spreading deliveries on to the market at peak periods.

In conclusion, Mr. Mills spoke of the courtesy of the New Zealanders and their evident desire to co-operate. He felt that arising out of the Ottawa Conference, the London Empire Producers' Conference, and now the N.Z. Conference, more effective contact with New Zealand an effective organisation could be built up. The foundations were laid for a permanent Empire organisation.

Mr. Brown said that the decisions of the London Conference and now the agreement with New Zealand should reflect favorably on the industry in the future.

At the instance of Messrs. Bailey and Carne, a hearty vote of thanks was conveyed to Messrs. Mills and Brown.

Pear Export: Mr. Moore expressed appreciation of the Australian Apple and Pear Export Council meeting in Sydney. He had received the fullest support and co-operation of his fellow delegates.

The Pear industry, stated Mr. Moore, was sufficiently important to warrant specific representation in future. At present it was possible for Victoria, the

principal Pear exporting State of the Commonwealth, to send two voting grower delegates representing Apples and none representing Pears.

The matter was deferred for further consideration.

Tariff on Imported Apples: Letter received from Southern Fruitgrowers' Association asking for support for their request to the Tariff Board for a duty of 4/- per case on imported Apples.

Mr. F. Pyke (Ringwood) said that the embargo had been partially lifted to allow into Australia, Apples from districts in New Zealand free of fire-blight. Apparently only central Otago was free, and he understood that the cool stores there were full of fruit from Nelson and other fireblight areas. Thus Australia was insufficiently protected from fireblight.

The majority of Victorian cool stores were only a third or half paid for. He viewed with alarm the possibility of Canadian Apples coming here during October-November, competing against local cool stored Apples. New Zealand had a duty of 4/- on Australian Lemons. He advocated a similar duty on Apples. Because of our costs of storage and waste, Canada was in a position to compete with our Apples. At the moment the exchange protected us, but a long view was necessary.

Mr. Bailey supported the request for heavy duty. Secondary industries were fully protected, it was time that primary industries should be protected. He moved that the request for duty of 4/- per case on Apples be supported.

Mr. Hutchinson said he would like to be in a position to develop the export of Apples to Canada.

Mr. Parnham urged that this matter be approached with caution. Protection was alright, but it should not be overdone. International high tariff walls were crippling export trades. Australia was a sufferer in this connection. To keep a small number of men employed in plate-glass work, we stood to lose meat trade with Belgium. Stored Apples were hard to sell just now.

Mr. Brown said the Canadian tariff on American Apples during the Canadian season was 75 cents per box, reducing to 25 cents subsequently. If mutual arrangements were made for trade, Canada would keep on the duty of 75 cents all the year, thus giving New Zealand and Australia the opportunity to send Apples to Canada. The Australian duty was now 3/- per cental (100 lbs.), and as the Ottawa agreements were in force till 1937, no alteration could be made except by mutual agreement. It was the sheltering behind an unscientific quarantine embargo to which particular objection was taken. He did not think the present Australian tariff should be altered. Australia had to remember the request for duties elsewhere: the British producer was asking for protection. Empire conferences brought about

a better understanding, but mutual arrangements were essential. A tariff war against a portion of the Empire might mean the endangering of our trade of 4½ to 5 million cases of Apples to U.K. The danger was a very real one. Canada could import 500,000 cases of Apples annually, and it did not matter if these came either from New Zealand or Australia.

Mr. Douglas said he would have to obtain instructions from his district growers before voting for the motion. At the moment he would vote against it.

After further discussion in which Messrs. F. Moore and Tully joined the motion at the instance of Messrs. Carne and Bailey was altered to read:

"In view of the possible considerable increase in local supplies of Apples during the coming season due to additional varieties prohibited from export and to hail marked and large sized fruit, this committee agrees to support the request of the Southern Fruitgrowers' Association for an enquiry by the Tariff Board on the matter of the duty on fresh fruit."

On the resolution being put it was carried, one grower voting against it. The shippers did not vote.

Vice-Presidents: Vice-Presidents were elected as follow:—Grower Vice-President, Mr. W. H. Carne; Shipper Vice-President, Mr. A. S. Harrison.

Other matters dealt with were: Thrips investigation; Colored labels for export; Trade with Germany; Retention of Mr. Meeking's services; Arsenical residue; Departmental tests for fineness of lead arsenate; Amended constitution; Report of 1934 export season.

SUPPORT CO-OPERATION

By Consigning your
FRUIT to the

Producers' Distributing Society Ltd.

(Late Coastal Farmers' Co-operative
Society Ltd.)

Agents for

"BLACK LEAF 40"
and all Orchard Requirements

Melbourne Sydney
Newcastle Devonport

Ship Your Oranges, Lemons, Grapes to New Zealand



All consignments for
this market will have
careful attention and
realise highest prices
if sent to

The Co-operative Fruitgrowers of Otago Limited, Dunedin

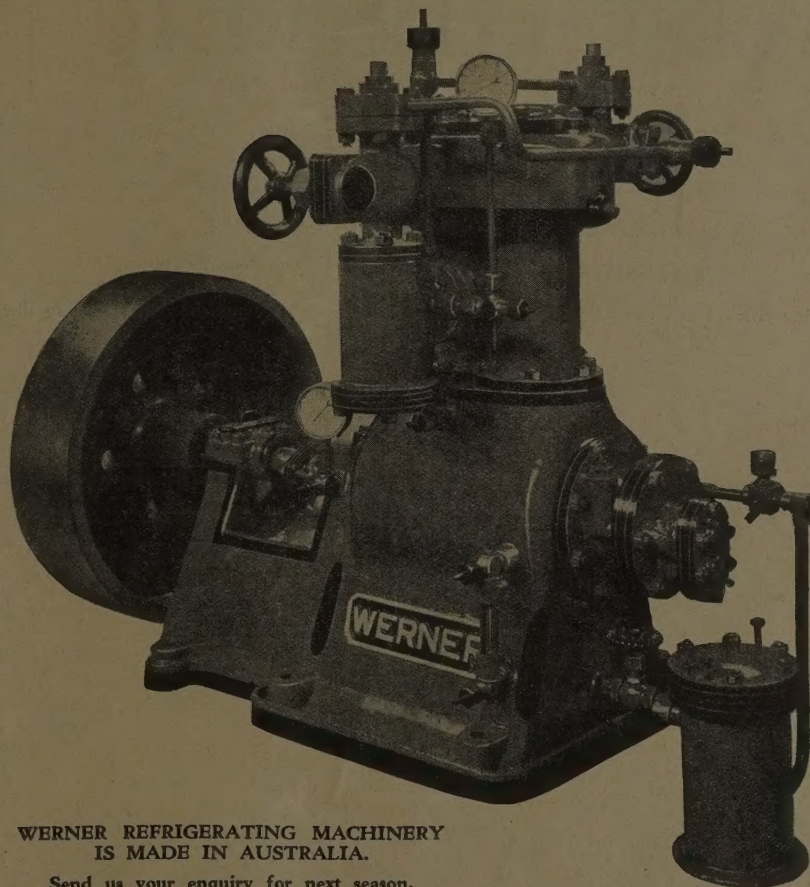
Personal supervision of
every consignment.

Cheques posted promptly.

Drop us a Line or Cable:
"Peachbloom," Dunedin.

**"WERNER" PLANTS Refrigerate
Over 1½ Million Cases
of Fruit in over 60 Stores
throughout the Commonwealth**

We design and Install Plants to Store from 500 Cases upwards



Enclosed Type
Ammonia
Compressor
Suitable for
Full
Automatic
Control

Type of
Compressor made
by Werner from
10-ton
upwards.

WERNER REFRIGERATING MACHINERY
IS MADE IN AUSTRALIA.

Send us your enquiry for next season.

R. WERNER & CO. PTY. LTD.

Refrigerating Engineers

54-86 BURNLEY STREET, - - RICHMOND

Phones: J 1161 (4 lines) and J 1087.

CITY SHOW ROOM: 610 LITTLE COLLINS STREET, MELBOURNE. Phone: Cent. 4320.

AGENTS:—

N.S.W.:

R. J. LINDSAY,
99 Kippax St., Sydney.

S.A.:

HARRIS, SCARFE LTD.,
Grenfell St., Adelaide.

W.A.:

W. G. DAVIES,
Cambray Chambers,
St. George's Terrace, Perth.

14,713,000 Consumers

(more than within a similar radius of London)

reside within 75 miles of

MANCHESTER

The nearest port and distributing centre for over 200 towns and

A Population of 12 Millions

ECONOMIC CONDITIONS AND COMMON SENSE SUGGEST

Direct Shipment to that Great Market

Thereby reducing distributing charges and handling to a minimum. If difficulty is experienced in securing direct freight advise the undersigned immediately—

Cables & Telegrams:

"PORTOMAN," Sydney.

CAPT. W. J. WADE,

Representative, Port of Manchester,

8 Bridge Street, Sydney, N.S.W.

ARE YOU

GRUBBING?

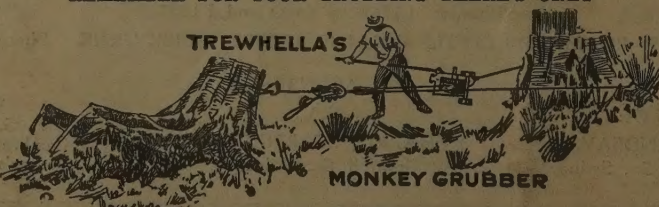
Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was **THE "MONKEY" GRUBBER.**

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

H. H. HINDS,
Kent Street, Sydney.

A. G. WEBSTER & SONS
Hobart and Launceston.



A. ROBINSON,
821 Ann St., Brisbane.

Leading Stores and
Merchants, South and
West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.